



DUT

DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

A photograph of a young Black male dental student in a white lab coat, focused on working on a dental model. He is using a pair of pliers. The image is partially obscured by a large, diagonal purple overlay that covers the left side and bottom portion of the frame.

DENTAL SCIENCES 2021 HANDBOOK

HANDBOOK FOR 2021

FACULTY of HEALTH SCIENCES

DEPARTMENT of DENTAL SCIENCES

The above department offers two programmes:

DENTAL TECHNOLOGY
DENTAL ASSISTING

This handbook offers information on both programmes

WHAT IS A UNIVERSITY OF TECHNOLOGY?

A university of technology is characterized by being research informed rather than research driven where the focus is on strategic and applied research that can be translated into professional practice. Furthermore, research output is commercialized thus providing a source of income for the institution. Learning programmes, in which the emphasis on technological capability is as important as cognitive skills, are developed around graduate profiles as defined by industry and the professions.

IMPORTANT NOTICES

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 subject Study Guides.

Your attention is specifically drawn to Rule GI (8), and to the process of dealing with students' issues.

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.

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FACULTY of HEALTH SCIENCES

FACULTY VISION, MISSION & VALUES

Vision: “Leading Transformative and Innovative Health Sciences Education”

Mission Statement: “Developing Holistic Professionals responsive to Healthcare needs” through *Excellence* in:

- Teaching and Learning
- Research, Innovation and Engagement
- Fostering Entrepreneurship

Values

Professionalism

To work within regulatory frameworks of professional conduct. To maintain and develop professional expertise and good work ethic.

Integrity

To conduct ourselves with strong moral principles. To be honest and authentic. To do what is ethical and just.

Ubuntu

To treat people with respect, fairness, courtesy, politeness and kindness.

Transparency

To conduct ourselves with openness and honesty through shared governance.

Accountability

To accept responsibility for one’s actions.

DEPARTMENTAL VISION, MISSION & VALUES

Department of Dental Sciences Vision:

Department Vision: “Advancing Excellence in Dental Science Education”

Mission Statement: “Developing Holistic Dental Professionals Responsive To Oral Healthcare Needs” through *excellence* in:

- Teaching, Learning and Assessment
- Research, Innovation, Engagement and
- Entrepreneurship

Values

Professionalism

To sustain professional expertise and engender ethical behaviour

Integrity

To practice and uphold moral principles, truthfulness and honesty

Accountability

To be liable for one’s decisions, commitments and actions

uBuntu

To embody mutual respect, dignity, empathy and altruism

Teamwork

To effectively work together towards common goals

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I. DEPARTMENTAL & FACULTY CONTACT DETAILS

All departmental queries to:

Secretary: Mrs Rani Sukhu
Tel No: (031)-3732044
Fax No: (031)-3732047
Email: sukhui@dut.ac.za
Location of Department Gate 8, Steve Biko Rd, Ritson Campus, Mansfield School

Admin Assistant:
(Dental Assisting) Vacant
Tel No: (031)-3735356
Fax No: (031)-3736401
Location of Department Main Gate, ML Sultan Rd, ML Sultan Campus, AH0005C

Clinic Receptionist/
Dental Assistant: Mrs B Majola
Tel No: (031)-3732439
Fax No: (031)-3736401
Email: bongekileb@dut.ac.za

All Faculty queries to:

Faculty Officer: Ms Fortunate Thembelihle Mayisela
Tel No: (031)-3732701
Fax No: (031)-3732407
Email: thembim@dut.ac.za
Location: Health Sciences Faculty Office, Gate 8, Steve Biko Road, Mansfield Site Area, Ritson Campus

Executive Dean: Professor A Ross
Executive Dean's Secretary: Mrs Bilkish Khan
Tel No: (031)-3732704
Fax No: 0866740237
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Location: Executive Dean's Office, 8, Steve Biko Road, Mansfield Site Area, Ritson Campus



2. STAFFING

Head of Programmes	Mrs Y Ngombane, MHSc: Dental Tech (DUT),
Senior Lecturer:	Dr A Vahed, DTech: Quality (DUT),
Lecturers	Ms M M P Zondi, MTech: Dent Tech (DUT), Dr M Radebe, MBA MANCOSA), PhD:Dent Theraphy (UKZN), Mrs K Pillay, MPhil Quality(DUT), Mr T Gumbi, MHSc: Dental Tech (DUT), Ms N Dladla, BTech: Dental Tech (DUT) Mr N.C Seedat, NHDip: Dental Tech (DUT)
Technician	Mr K Padayachee, BTech: Dental Tech
Secretary Dental Sciences	Mrs R Sukhu, B Tech: Commercial Administration (ML)
Admin Assistant Dental Assisting	Vacant
Clinic Receptionist/ Dental Assistant	Mrs B Majola
Senior Technical Assistant	Ms W Allison B Tech: Cost and Management Accounting
Technical Assistant	Mr M P Phewa
Admin Assistant	Mr M Ndebele

3. DEPARTMENTAL INFORMATION & RULES

3.1. PROGRAMMES OFFERED BY THE DEPARTMENT

This department offers two programmes, namely

- Dental Technology
- Dental Assisting

3.2. QUALIFICATIONS OFFERED BY THE DEPARTMENT

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

Qualification	Qual Code	SAQA NLRD Number	Important Dates
HC: Dental Assisting	HCDNA	73492	
ND: Dental Technology	NDDNTI	72222	Teach Out 2024
ND: ECP: Dental Technology	NDDTFI	72222	Teach Out 2024
BHSc: Dental Technology	BHDNTI	94626	Awaiting approval
BHSc: Dental Technology (ECP)		94626	Awaiting approval
MHSc: Dental Technology	MHDNTI		
DDentalTech: Dental Technology	DTDNTI	96826	
		72095	

3.3. DEPARTMENTAL INFORMATION

3.3.1. Academic Integrity

Please refer to the General Rules pertaining to academic integrity G13 (1)(o). These will be enforced wherever necessary to safeguard the worthiness of our qualifications, and the integrity of the Faculty of Health Sciences at the DUT.

3.3.2. Code of Conduct for students

In addition to the General Rules pertaining to Conduct SR3 (3), a professional code of conduct pertaining to behaviour, appearance, personal hygiene and dress shall apply to all students registered in a Dental Technology programme. Students are not allowed to perform private work for patients or dentists, or any other dental professional. This aligns with No. 17 of Section 1.16 of SADTC ACT.

3.3.2.1 Laboratory Conduct

Only Dental Technology students are allowed in the Dental laboratories.

- Noise levels should be kept low at all times.
- Hand bags/Backpacks should be stored in the designated bag areas.
- No student may bring food into the dental laboratory. There is strictly no eating in the dental laboratory.
- No laptops are allowed in the dental laboratories, unless prior arrangements have been made with the lecturer.

- No earphones may be used, unless permitted by the lecturer.
- Students may not work at another student's work station.
- Students cannot enter, or sit, in another dental laboratory without the lecturer's permission.
- Students are to avoid material wastage.
- Students are to ensure that machinery and Bunsen burners are switched off when not in use. Remember that Bunsen burners utilise "priceless" oxygen thereby increasing the carbon dioxide levels in the labs.
- Students arriving late for practical sessions will need to provide reasons for their lateness in a letter addressed to the lecturer. Lateness means that you will be missing part of the practical, as well as creating a disturbance for the other students.
- Students need to obtain their lecturer's permission to leave the lab.
- At the end of each day, students will be dismissed by the lecturer.
- Attendance registers will be signed at the beginning and the end of the practical sessions.
- Students must adhere to all Health and Safety regulations whilst working in the laboratories.
- Students must comply with all COVID-19 regulations at all times.
- Students arriving late for a test will be allowed entry up to one hour after the commencement of the test. Such student will not be allowed extra time.
- No student may leave a test venue within the first hour of a test or thereafter without the permission of the invigilator.

Cleaning of Laboratories

- Students must try and work meticulously at all times.
- Student "mess/mishaps" must be cleaned immediately by the student concerned.
- All students will clean the laboratory and plaster rooms daily prior to the end of the practical.
- Student workbenches and surroundings areas (*including laboratory floors*) are to be kept clean and tidy at all times.
- Students who abscond and/or do not clean will need to appear before a departmental student tribunal.

Dress Code:

- Laboratory coats and other protective clothing must be worn at all times when in the dental laboratory.
- Closed shoes must be worn at all times when in the dental laboratory.
- Appropriate attire is to be worn at all times. Inappropriate dressing will not be tolerated and any student in contravention of this will not be allowed in the dental laboratory.
- Hats, beanies and caps are not to be worn in the dental laboratory.
- Long hair, including a hairpiece, must be tied up at all times.
- Face masks and protective goggles must be worn when appropriate (when working off or grinding/ working in the casting room).

Discipline

- Students found to contravene the code of conduct will appear before the departmental student tribunal for appropriate disciplinary action. Note that disciplinary action is required to correct the student's misdemeanour.
- Students who continually transgress these rules will then be referred to the institutional disciplinary tribunal.

3.3.3. Uniforms

Students must adhere to instructions regarding specific uniforms required during practical's and clinic sessions.

3.3.4. Attendance

Students are encouraged to achieve hundred percent (100%) attendance for all planned academic activities as these are designed to provide optimal support for the required competency. Where absence is unavoidable, the student must timeously advise the department of the reason. Only exceptional reasons will be accepted for absence from guest lectures, industry or field trips. Poor attendance records may lead to penalties.

3.3.5. Health and Safety

Students must adhere to all Health and Safety regulations and COVID-19 regulations, both at DUT and during Workplace Based Learning (WPBL) placements. Failure to do so will be treated as a breach of discipline.

3.4. DEPARTMENTAL RULES

3.4.1. Registration

The final date for late registration for the Dental Technology and Dental Assisting Programme will be fifteen (15) working days after the official



commencement of lectures.

3.4.2. **Discipline**

Rules of conduct pertaining to a specific laboratory as instituted by the Head of this Department shall apply to all students registered for the particular subject.

3.4.2.1 **Material Wastage**

Students found to be wasting materials will be disciplined in terms of completing several hours of community service.

3.4.2.2 **General Disciplinary Issues**

The Head of Department shall have the right to constitute an internal disciplinary tribunal should he/she deem this necessary. The authority of the internal disciplinary tribunal shall be limited to cleaning duties or community work.

3.4.2.3 **Equipment**

Equipment Damage: students found to have wilfully damaged any equipment will be charged the full amount of the repair / replacement. The Department is **NOT** responsible for any damage to personal equipment caused by **“POWER SURGES.”**

Issued Equipment: students will be allocated departmental equipment for the duration of the year. It is the student's responsibility to take care of the said equipment. Any equipment, lost, stolen or damaged will be to the account of the student to whom the equipment was issued.

Please note: the department supplies lockers for the safe-guarding of equipment. The student is required to pay a R200.00 holding fee at time of registration. Each student is to ensure that they have their own equipment and instruments to complete the practical tasks. There will be consequences to those students who are NOT compliant.

3.4.2.4 Laboratory and/or Clinic Cleaning

Students are required to clean laboratories and/or clinics at the end of the teaching day. Dental Assisting students are to be present at general cleaning every Wednesday Afternoon Failure to be present will result in the student cleaning his/her laboratory or all the laboratories/clinic (up to one week) of the department of Dental Sciences or community work. Students transgressing this rule for a third, or more, time will be referred to the Registrar Academic for institutional disciplinary action. In those instances, where discipline is of a serious nature or that the student concerned has been found guilty of a similar offence, the matter will be referred to the DUTs disciplinary tribunal.

3.4.2.5 Absenteeism

Lecturers appreciate 100% attendance. Non-attendance will negatively impact on student performances in subjects. Please consult the respective study guide to ensure you know which teaching activities are compulsory for the course (i.e. due performance requirements) and the consequences of missing such activities. Please note that ALL assessments are compulsory. If, for any reason whatsoever you miss an assessment, be it a test, examination or the deadline for an assignment, or practical work you will be given zero for that assessment unless you can justify your absence. The reason cited must describe a circumstance that is both unexpected and sufficiently drastic that your absence was effectively unavoidable. The onus is on the student to present this justification to the appropriate authorities timeously. 'Timeously' means within three days of the assessment you missed. In addition, submission of justificatory documents does not in and of itself guarantee that your excuse will be accepted. If the documents you provide fail to convince that your absence was for genuinely pressing reasons, your excuse may be rejected, in which case you will be given zero for the relevant assessment. Reasons as attendance at music festivals, drivers licence/learners test and family holiday plans are not considered a valid reason for temporary leave of absence, so don't make plans that clash with the University calendar.

3.4.3. Workplace Based Learning (WPBL) or Practical Laboratory Exposure

The Department of Dental Sciences requires the student to undergo a period of experiential learning as part of the programme (Dental Technology and Dental Assisting). All prescribed subjects and the prescribed experiential component must be passed in order to obtain sufficient credits to qualify for the qualification. The Institution undertakes to assist the student in obtaining suitable experiential learning placement. The employer must be accredited by the Institution for the purposes of experiential learning.

Students registered for **Applied Dental Technology III** are required to provide the department with proof of having completed Workplace Based Learning at a commercial laboratory.

- For the purposes of sub regulation (1) the council and the approved institution must approve and accredit any dental laboratory referred to in sub regulation (1) by a process of evaluation as determined by council from time to time, by Rule.
- An approved institution must ensure that the proficiency acquired through work integrated learning /practical laboratory exposure and other practical work, together with academic training, is sufficient for a student dental technologist to be employed as a dental technician or dental technologist.

Dental Laboratory Practice

Students are referred to Rule G28.

1. **Dental Laboratory Practice** learning is a compulsory component of this qualification and the student is required to attend 24 weeks in an accredited laboratory as well as meeting certain outcomes as specified in the Study guide for this module.
2. A completed record book must be completed by the 31st March in the fourth year of study and must detail and provide proof of all completed **Dental Laboratory Practice** learning activities.
3. Students are required to comply with the rules and regulations of the laboratory in which they are placed.
4. Disciplinary matters occurring in the laboratory will in the first instance be subject to the Laboratory's Disciplinary Code of Conduct and then be referred to DUT for student disciplinary action.

3.4.4. Late submissions of practical tasks and assignments

Practical tasks and assignments that are not handed in on the due date and time will be penalized. Students are reminded that assignments are given well in advance and that last minute problems can be avoided by completing assignments before the due date. **See discipline-specific study guides for further details.**

3.4.5. Dental Clinic

The Department of Dental Sciences operates a Dental Clinic for the training of Dental Technology and Dental Assisting students.

Dental Technology - Work generated by this clinic is handed to students to complete. Please note that the completion of this work is compulsory. The work completed by students for the clinic may be evaluated and the marks obtained by the student may be used in the determination of a student's year mark.

Dental Assisting - Students are expected to assist the clinician with all procedures.

3.4.6. Special Tests and Condonement

Summative means all assessment marks that contribute to the final mark of a subject, but not including examinations for the purpose of this rule.

In addition to Bullet 5 of 3.4.2, If a student misses a summative written, oral or practical test, **for reasons of illness**, a special test may be granted if the student provides a valid medical certificate specifying the nature and duration of the illness and a declaration that for health reasons the student could not sit for the test. **This certificate must be submitted to the subject lecturer, no later than one week after the date of the missed test.**

Any student who misses an assessment test, and any student who qualifies for a rewrite but fails to write it, will be scored a zero mark for the missed assessment.

3.4.7. Registration with the Professional Board: Dental Technology Students

In addition to the requirements of the General Rules (see Rule G3) a student who registers for the National Diploma in Dental Technology or Bachelor of Health Sciences in Dental Sciences or Postgraduate qualification in Dental Technology (practicing as a Dental Technician or Dental Technologist) shall be registered as a Student Dental Technician and must conform to the requirements as laid down by the South African Dental Technicians Council in the Dental Technicians Act, 1979 (ACT No, 19 of 1979 as amended on the 27 March 2020).

A graduate, on successful completion of the National Diploma in Dental Technology, and who has satisfied the requirements of the South African Dental Technicians Council shall be recognized by the South African Dental Technicians Council as qualified for registration as a dental technician. The said qualification shall entitle the holder thereof to practice a profession as a Dental Technician, however only in the capacity of employee.

A graduate on successful completion of the Bachelor of Health Sciences in Dental Sciences, and who has satisfied the requirements of the South African Dental Technicians Council shall be recognized by the South African Dental Technicians Council as qualified for registration as a Dental Technologist.

No student who is in fee default with the Institution will be registered with the South African Dental Technicians Council until such time as his/her fees are paid up in full. This must be completed within five years of obtaining your qualification.

3.4.8. Registration with the Professional Board: Dental Assisting Students

In addition to the requirements of the General Rules (see Rule G3) a student who registers for the National Certificate in Dental Assisting shall be registered as a Student Dental Assistant and must conform to the requirements as laid down by the Health Professionals Council of South Africa.



A graduate, on successful completion of the National Certificate in Dental Assisting, and who has satisfied the requirements of the Health Professionals Council of South Africa shall be recognized by the Health Professionals Council of South Africa as qualified for registration as a Dental Assistant.

No student who is in fee default with the Institution will be registered with the Health Professionals Council of South Africa until such time as his/her fees are paid up in full.

3.4.9 Appeals

Rule G1 (8) refers:

Any student wishing to appeal against:

- (a) The implementation of an Institutional Rule must do so in the first instance to the relevant Head of Department;
- (b) The decision of a Head of Department must do so via the relevant Executive Dean to the Faculty Board or a delegated Committee of the Faculty Board. The decision of the Faculty Board or a delegated Committee of the Faculty Board is final and no further appeals will be considered thereafter.

(Amended w.e.f. 2009/01)

4. NATIONAL DIPLOMA: DENTAL TECHNOLOGY

4.1 PROGRAMME INFORMATION

A diploma in Dental Technology enables a qualified dental technician to work as a dental laboratory employee upon registration with the South African Dental Technicians Council (SADTC). A final practical assessment is conducted, in the concluding year of the programme, which, if completed successfully, enables the qualified student to register with the SADTC. Certain subjects in this programme do not have a final examination. The results for these subjects are determined through a weighted combination of assessments. As such, there are no supplementary examinations. Students are encouraged 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. Moderation follows the DUT requirements.

4.2 LEARNING PROGRAMME STRUCTURE

Code	Subjects	NQF Level	CA/E *	DoE Credits
Study Level 1				
OANA101	Oral Anatomy I	6	CA	0.080
TMOR101	Tooth Morphology I	6	CA	0.080
DMSC102	Dental Materials Science I	6	CA	0.350
DTTH101	Dental Technology Theory I	6	CA	0.240
APDT101	Applied Dental Technology I	6	CA	0.170
PHCD111	Physics & Chemistry I (Mod 1) (Physics)	6	E	0.100
PHCD121	Physics & Chemistry I (Mod 2) (Chemistry)	6	E	0.100
Study Level 2				
DMSC211	Dental Materials Science II (Module 1)	6	E	0.200
DMSC221	Dental Materials Science II (Module 2)	6	E	0.200
DTTH211	Dental Technology Theory II (Mod 1) (Crown/Bridge & Orthodontics)	6	CA	0.125
DTTH221	Dental Technology Theory II (Mod 2) (Chrome & Prosthetics)	6	CA	0.125
		6	CA	0.250

Study Level 3						
BPRD101	Business Practice I	6	CA	0.170	12	
DMSC301	Dental Materials Science III	6	CA	0.350	42	Dental Materials Science II, Oral Anatomy, Dental Technology Theory II
DTTH311	Dental Technology Theory III (Mod 1) (Crown/Bridge & Orthodontics)	6	CA	0.140	16.8	Dental Technology Theory II (Mod 1) (Crown/Bridge & Orthodontics), Oral Anatomy
DTTH321	Dental Technology Theory III (Mod 2) (Chrome & Prosthetics)	6	CA	0.140	16.8	Dental Technology Theory II (Mod 2) (Chrome & Prosthetics), Oral Anatomy
APDT301	Applied Dental Technology III	6	CA	0.200	24	Oral Anatomy, Applied Dental Technology II, Dental Materials Science III
ETDN301	Experiential Learning	6	CA	0.000	0	Oral Anatomy I
CMCA102	Communication I	6	CA	0.080	9.6	

*CA = Continuous Assessment; E = Examination at end of Subject / Module

4.3 PROGRAMME RULES

4.3.1. Minimum Admission Requirements

In addition to Rule G7 the minimum entrance requirement for entry into the programme of study is a National Senior Certificate (NSC) with endorsement for degree entry with the following subjects:

Subject	NSC Rating
English (home) OR English (1st additional)	3
Physical Sciences OR	3
Mathematics OR	3
Mathematics Literacy	6
And two 20 credit subjects (not more than one language)	3

The minimum requirement for holders of the Senior Certificate is matriculation exemption with the following subjects at the stated ratings:

Compulsory Subjects	HG	SG
Mathematics OR Physical Science	E	C

The latter also applies to National Certificate (Vocational) level 4 candidates. The DUT General Rules G7 (3) will apply for admission requirements based upon Work Experience, Age and Maturity and Recognition of

Prior Learning.

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

4.3.2. Selection Processes

In accordance with Rule G5, acceptance into the programme is limited to 29 places. As more qualifying applications are received than can be accommodated, 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 12 June / trial marks will be used for current matriculants) together with a submission of a portfolio. Shortlisted students will then be invited to undergo placement testing. Applicants who pass the placement tests are invited for an interview. 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 in the SC / NSC and DUT placement tests.

4.3.3. Pass Requirements

Notwithstanding the DUT pass requirements (G14 and G15), and those detailed as follows, students are encouraged to apply themselves to their learning, and strive for the best academic results possible in order to adequately prepare themselves for their future careers, and to maximize possible employment opportunities. In line with SADTC requirements, students must complete their National Diploma qualification within five years.

4.3.3.1. A student Dental Technician shall not be permitted to continue with Dental Technology Theory II and III; Dental Material Science II and III; and Applied Dental Technology II and III unless the student has passed the preceding level. (Consistent with Dental Technicians Act, 1979. Reg 21(2))

4.3.3.2. Tooth Morphology is a prerequisite for Applied Dental Technology II.

4.3.3.3. Oral Anatomy is a prerequisite for Applied Dental Technology III and Experiential Learning.

4.3.3.4. Continuous Evaluation Subject Rules

Please refer to 4.1 Learning Programme Structure to identify the subjects/modules, which are evaluated by Continuous Assessment. Examinations will not be written in these subjects / modules. All modules will need to be passed in the same academic year. See "Subject Content" for further information as well as specific Study Guides, which contain specific rules for each subject. Any numbers of tasks may form the class work marks. This is solely dependent on the discipline-specific lecturer in charge of the different sections. Formal tests will be held during the year. These will be held as and when necessary.

Students failing formative class work and assessments are encouraged to repeat exercises to improve their performance. Summative classwork and assessments are exempt from a re-submission.

4.3.3.5. Examination Subject Rules

Please refer to 4.1 Learning Programme Structure to identify the subjects / modules, which are evaluated by Examination.

A 40% year mark is required to enter the examination for each module for the above subjects.

A final pass mark of 50% is required for each module for the above subjects.

The examination for Module 1 is written during the mid-year examination period and for Module 2, during the year-end examination period.

A student failing Module 1 and Module 2 will be permitted supplementary examinations provided that the results obtained comply with the supplementary examination rules as contained in rule G13 (3).

A student must pass both modules in one academic year failing which the student will be required to re-register for both modules.

4.3.3.6 Rules for Dental Technology Theory II and Dental Technology Theory III

Both subjects run for the entire year (annual)

Both subjects consist of 2 modules each containing 2 study units:

- Module 1: Study Unit 1 —Crown and Bridge and Study Unit 2: Orthodontics;
- Module 2: Study Unit 1 —Chrome and Study Unit 2: Prosthetics

Final marks for each study unit will be determined as follows:

Assessment	Weighting	Sub minimum
Assessment 1	30%	
Assessment 2	50%	45% required
Assessment 3 (Assignment/presentation)	20%	50% required

Note for each Study Unit:

- In respect to Assessment 1, a subminimum mark is not applicable.
- A subminimum pass mark of 45% is required for Assessment 2. Failure to achieve a 45% sub-minimum mark will require students to write an end-of-year retest, which will take place in the last month of the academic year. . The mark achieved for this test will replace the worse mark of either Test 1 or Test 2. The maximum mark that can be achieved is 50%. Note that the re-test will include content from both Tests 1 and 2.
- A subminimum of 50% will apply to final assignments / presentations submissions. Students may be afforded formative assessment opportunities prior to the final submission.

- The final mark for each Study Unit comprises the marks scored for Assessment 1, 2, & 3 (Assignment/presentation) with the appropriate weightings. The final pass mark for each unit per Module is 50%.
- Credit for Dental Technology Theory II and Dental Technology Theory III subjects will only be granted if the student passes both study units for Module 1 and Module 2 in the same academic year for each theory subject. Therefore, failure in any study unit will necessitate re-registration for all study units per module.

Applied Dental Technology I

Final marks will be determined as follows:

Assessment	Weighting	Subminimum
Assessment 1	30%	-
Assessment 2	30%	40% required per discipline
Class work	40%	50% required per discipline

Applied Dental Technology II and Applied Dental Technology III

Both subjects consist of 4 study units.

Final marks for each study unit will be determined as follows:

Applied Dental Technology II

Assessment	Weighting	Subminimum
Assessment 1	30%	-
Assessment 2	30%	40% required per discipline
Class work	40%	50% required per discipline

Applied Dental Technology III

Assessment	Weighting	Subminimum
Assessment 1	30%	-
Assessment 2	30%	50% required per discipline
Class work	40%	50% required per discipline

Note: A 50% subminimum is required for Applied Dental Technology III (Assessment 2)

4.3.3.7. Rules for Practical Tests and Examinations

A. Preparation procedures prior to the commencement of the test and/or examination.

- A.1. All models, examples, teaching aids, previous work done by the students must be cleared out of the laboratory at least one day prior to the commencement

of the test/examination. This is to ensure that no outside help or unfair advantage can be gained by the students. Students are to make their own arrangements as to what they should do with these articles cleared from the laboratory.

- A.2. All materials, personal tools and equipment required for the practical must be on hand and in working order.
- A.3. The invigilator must ensure that all models must be laid out or on-hand and clearly marked for the test / examination.

B. Test and/or examination day.

- B.1. No student is allowed to communicate with another student, except when it is relevant to the practical test.

1.1 You are not allowed to discuss your practical cases during the practical test.

- B.2. You are NOT allowed to have old models and practical work in your possession.
- B.3. Cell phones are to be switched off and placed in your bags.
 - 3.1 You are not allowed to have a cell phone in your possession, if found, it will be confiscated for the duration of the test.
- B.4. All materials obtained prior and during this test are to be obtained from the Departmental Store only.
 - 4.1 All communal materials must be obtained and returned to the invigilator.
- B.5. A replacement model, if required, must be obtained from the designated invigilator on duty.
- B.6. No student may bring any handbags or lunch boxes into a test or an examination. Students are to make their own arrangements as to what they should do with these articles.
- B.7. Students enter, go to their workstations, layout and prepare their tools and instruments.
- B.8. The following will be read out prior to the text/examination papers being handed out: “This is an official test/examination of the Department of Dental Sciences as constituted by the Durban University of Technology. All rules of the Institution pertaining to tests and examination apply. These rules are to be found in the Rule Book for students of the Institution and are available to students on request. Those students contravening these rules will be prosecuted in terms of the rules of the Durban University of Technology by the Institution’s disciplinary tribunal.” (Note to invigilator: In the case of an examination a list of instructions to be read to students will be supplied by Examinations Office and must be read out as well as B.3)
- B.9. Time of arrival for major practical tests, any student arriving late will be allowed into the laboratory only up to one hour after the commencement of

the test. Such a student will not be allowed extra time. This is aligned with the DUT test and examination rules.

C. The following laboratory rules & procedures will apply:

- C.1. No additional tools, instruments, models or equipment may be brought into the laboratory during the duration of the test/examination. Any additional materials required by the student to complete the test/examination may only be brought into the venue under the supervision of the invigilator. No tools, instruments, materials, models or equipment may be taken out of the laboratory until the end of the test/examination and after all, work has been taken in for marking.
- C.2. At lunchtime, the invigilator will inform the students to stop working. All gas taps are to be turned off and the students are to stand by their workstations and await the invigilator's instructions. Upon checking each student's work the invigilator will give the student permission to leave the laboratory. At the end of the lunch break, the invigilator will allow the students to re-enter and carry on from where they left off.

D. At the end of the day:

- D.1. The invigilator will inform the students to stop working.
- D.2. All students will tidy their workstations and layout their work-in-progress on their workbenches.
- D.3. All students will then clean the laboratory to the satisfaction of the invigilator.
- D.4. After the laboratory has been cleaned, the student will stand by their workstations and the invigilator will check all work to ensure that everything is present. The onus is on the student to ensure that all his/her work is present on the bench for inspection. The student will then be told that he/she can go and must leave the laboratory immediately. The student's work is to be left on the top of his/her workbench. If the student has a muffle to go into the overnight furnace, the student must go to the casting room with the muffle and wait there for the invigilator.
- D.5. After all the students have left, the invigilator will secure and lock the laboratory.

E. A student may not:

- E.1. Touch or handle another student's work;
- E.2. Discuss his/her work or another student's work with another student;
- E.3. Leave the test/examination room FOR WHATEVER REASON without the permission of the designated invigilator;
- E.4. Work at another student's workstation;
- E.5. Invest or cast another student's work, either together or separately with their own work.

- F. A student completing the work prior to the end of the test or examination may inform the invigilator that he/she is finished. He/she must then tidy his/her workstation and hand in his/her completed work. The student must then leave the laboratory immediately. At the end of the test or examination, the student must return and help to clean the laboratory.
- G. At the end of the test/examination, the invigilator will stop the students from working. Students are then required to clean the laboratory. When the laboratory is clean, the invigilator will take in the student's work. It is the student's responsibility to see that all his/her work is clearly marked with his/her name or number.
- H. Students are to hand in their own work. Test/examination work MAY NOT be handed in by another student.

I. Casting procedure

- I.1 A student may only cast his/her own work.
- I.2 The student will ensure that his/her muffle and casting ring is clearly marked with his/her name or number.
- I.3 In the event that a student casts another student's muffle and casting ring his/her own muffle and casting ring will be withdrawn and he/she will have to start that section of work again. If the other student's muffle is a miscast, he/she will be allocated extra time only at the discretion of the Head of Department.
- I.4 All castings need to be performed in the presence of the invigilator. When ready to cast please inform the invigilator. Failure to do so will result in your casting being withdrawn.
- I.5 All work must be submitted on an appropriate articulator.

Note:

Any contravention of the above mentioned instructions/requirements will lead to disciplinary action.

J. Flasking and Packing of Dentures

The student will ensure that his/her flasks and clamps are clearly marked or labelled with his/her name or number. In the event that a student packs or flasks another student's work, his/her own work will be withdrawn and he/she will have to start that section of the work again. If the other student's work

has been damaged, he/she will be allocated extra time at the discretion of the Head of Department.

K Procedure for packing overnight furnace

When a student wants a muffle or casting ring to go into the overnight furnace he/she will take the muffle or cast ring to the casting room after his/her work station has been checked at the end of the day. The invigilator will then pack the furnace and set the times and temperature. Each student will note the position of his/her muffle or casting ring in the furnace and the casting in the morning will be in the reverse sequence to the placing of the muffles or casting rings the night before.

- L** After the invigilator has confirmed that students acknowledge the rules as displayed on the class notice board and those additional rules and/or instructions (where necessary) have been verbally explained, the paper is issued and the test/examination will start.

4.3.4. First Aid Certificate

Students shall not be permitted to sit for the examinations at the end of their Final Exit-level year of study unless they are in possession of a Certificate in General First-Aid issued by a first-aid organization recognized by the Institution. Students missing the course for any reason will be expected to obtain the required certificate at their own cost and in their own time.

4.3.5. Re- Registration Rules

Rule G16 of the General Handbook for Students applies.

4.3.6. Exclusion Rules

In addition to Rule G17, the following rule applies: A first year student who fails 3 or more subjects with a final mark of less than 40% in these subjects will not be permitted to re-register in the Dental Technology programme. De-registration from any subject is subject to the provisions of Rule G6 (2). Students wishing to re-apply must do so in writing to the department and may be required to undergo further placement testing.

4.3.7. Interruption of Studies

In accordance with Rule G21A (b), the minimum duration for this will be three (3) years of registered study and the maximum duration will be five (5) years of registered study, including any periods of WPBL. 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. (Please note that this rule is necessary to comply with the South African Dental Technicians Council Rules as per the Dental Technicians Act, 1979 (Regulations regarding the training of student Dental Technicians, No. 21 (4) w.e.f 23 February 2001.)

4.3.8. **Materials Purchases**

Money for materials purchases is to be deposited into the official Durban University of Technology bank account, account number FDTs 301374. A duplicate receipt is to be requested from the cashier, which then needs to be presented to the Senior Technical Assistant who will process the payment on the internal departmental system. Students are responsible for the purchase and cost of dental materials. DUT is a cashless environment. At no point are you to hand cash to anyone in the university other than the cashiers.

Note: Students are also responsible for the purchase of personal equipment and instruments, which are needed to complete practical tasks. The table below reflects the estimated cost of equipment and instruments for personal use.

DENTAL TECHNOLOGY : STUDENT EQUIPMENT			
ECP	1st YEAR	2nd YEAR	3rd & 4th YEARS
HAND TOOLS	HAND TOOLS	HAND TOOLS	HAND TOOLS
Micro Motor	Micro Motor	Micro Motor	Micro Motor
Micro Torch	Micro Torch	Micro Torch	Micro Torch
Ash Carver No. 5	Ash Carver No. 5	Ash Carver No. 5	Ash Carver No. 5
Apex Carver Lecron Round	Apex Carver Lecron Round	Apex Carver Lecron Round	Apex Carver Lecron Round
Scalpel Handle	Scalpel Handle	Scalpel Handle	Scalpel Handle
Scalpel Blade	Scalpel Blades (5 per student)	Scalpel Blades (5 per Student)	Scalpel Blades (5 per Student)
Wax Knife Large	Wax Knife Large	Wax Knife Large	Wax Knife Large
Plaster	Plaster Knife	Plaster Knife	Plaster Knife
Plaster Spatula	Plaster Spatula	Plaster Spatula	Plaster Spatula
Pk Thomas Carver	Pk Thomas Carver	Pk Thomas Carver	Pk Thomas Carver
		Wax Dropper	Wax Dropper
			Porcelain Separator
			Artery Forceps
		Measuring Gauge for metal	Measuring Gauge for metal
			Glass Slab
			Porcelain Brush No.6, No.2
		Penpoint trimmer	Penpoint trimmer
BURS	BURS	BURS	BURS

Cross Cut Bur - Dentures	Cross Cut Bur - Dentures	Cross Cut Bur - Dentures	Cross Cut Bur - Dentures
S/Steel Rosehead Bur	S/Steel Rosehead Bur	S/Steel Rosehead Bur	S/Steel Rosehead Bur
Sandpaper Mandrel	Sandpaper Mandrel	Sandpaper Mandrel	Sandpaper Mandrel
Mandrel Screw Type	Mandrel Screw Type	Mandrel Screw Type	Mandrel Screw Type
Plaster Bur	Plaster Bur	Plaster Bur	Plaster Bur
Pear Shape Carbide Bur	Pear Shape Carbide Bur	Pear Shape Carbide Bur (2 per Student)	Pear Shape Carbide Bur (2 per Student)
Tungsten Fissure Bur	Tungsten Fissure Bur	Tungsten Fissure Bur (2 per Student)	Tungsten Fissure Bur (2 per Student)
	Mandrel Screw Type Heavy Duty	Mandrel Screw Type Heavy Duty (2 per Student)	Mandrel Screw Type Heavy Duty (2 per Student)
		Cutting Disc	Cutting Disc
		Tungsten Carbide Cross Cut Parallel	Tungsten Carbide Cross Cut Parallel
		Stone Grinder (Parallel)	Stone Grinder (Parallel)
		Diamond Burs (Parallel, Pointed & Tapered)	Diamond Burs (Parallel, Pointed & Tapered)
POLISHING EQUIPMENT	POLISHING EQUIPMENT	POLISHING EQUIPMENT	POLISHING EQUIPMENT
linen pumice wheel (4 x 42)	linen pumice wheel (4 x 42) (2 per student)	Linen. Lathe Brush Calico interleaved with Fino 3 Rows pumice wheel (4 x 42) (2 per student)	linen pumice wheel (4 x 42) (2 per student)
Calico Lathe Wheel	Calico Lathe Wheel	Calico Lathe Wheel.	Calico Lathe Wheel
	Rubber Cones For Denture Work (Pack of 6)	Rubber Cones For Denture Work (Pack of 6)	Rubber Cones For Denture Work (Pack of 6)
Rubber Cone (Lollipop)	Rubber Cone (Lollipop) (pack of 6)	Rubber Cone (Lollipop) (Pack of 6)	Rubber Cone (Lollipop) (Pack of 6)
Muslin Buff	Muslin Buff (2 per student)	Muslin Buff (2 per Student)	Muslin Buff (2 per Student)
	Felt Polishing Cone	Felt Polishing Cone	Felt Polishing Cone
			Metal Centred Pumice Brush
		White Rubber wheels	White rubber wheels
		Black Rubber wheels	Black rubber Wheels

GENERAL	GENERAL	GENERAL	GENERAL
Rubber Mixing Bowl (Acrylic Resimix Large)	Rubber Mixing Bowl (Acrylic Resimix Large)	Rubber Mixing Bowl (Acrylic Resimix Large)	Rubber Mixing Bowl (Acrylic Resimix Large)
Rubber Mixing Bowl (Plaster Large Green)	Rubber Mixing Bowl (Plaster Large Green)	Rubber Mixing Bowl (Plaster Large Green)	Rubber Mixing Bowl (Plaster Large Green)
Robinson Soft Brush	Robinson Soft Brush	Robinson Soft Brush (pack of	Robinson Soft Brush (pack of 12)

(pack of	(pack of 12)	12)	
150mm Ruler Stainless Steel	150mm Ruler Stainless Steel	150mm Ruler Stainless Steel	150mm Ruler Stainless Steel
Spring Dividers 100mm	Spring Dividers 100mm	Spring Dividers 100mm	Spring Dividers 100mm
Paint Scrapers 100mm	Paint Scrapers 100mm	Paint Scrapers 100mm	Paint Scrapers 100mm
Goggles Safety	Goggles Safety	Goggles Safety	Goggles Safety
Diagonal Cutters (Side Cutters)	Diagonal Cutters (Side Cutters)	Diagonal Cutters (Side Cutters)	Diagonal Cutters (Side Cutters)
Paint Brush 8mm	Paint Brush 8mm	Paint Brush 8mm	Paint Brush 8mm
Water Paper (800 and 1000 grit)	Water Paper (800 and 1000 grit)	Water Paper (800 and 1000 grit)	Water Paper
Protractor	Protractor	Protractor	Protractor
	hand/medium size towel	hand/medium size towel	hand/medium size towel
	mechanical pencil (coloured lead)	mechanical pencil (coloured lead)	mechanical pencil (coloured lead)
	Tippex	Tippex	Tippex
Long sleeve, long length white lab coat	Long sleeve, long length white lab coat	Soldering Tweezers	Soldering Tweezers
Tub of petroleum jelly	Tub of petroleum jelly	Ortho Pliers (Round/LONG Nose) (ASH UK 64 OR 65)	Ortho Pliers (Round Nose)
		Ortho Pliers (ADAM'S PLIERS ASH UK 64/65)	Ortho Pliers (Long Nose)
		Wire Cutters	Wire Cutters
		Snapper Articulator	Snapper Articulator
			Porcelain Kit
			Flasks

4.3.9 Vaccinations

The Department will facilitate a mandatory Hepatitis B vaccination for first time entering students.

5. NATIONAL DIPLOMA: DENTAL TECHNOLOGY: EXTENDED CURRICULUM PROGRAMME (ECP) (NDDTFI)

5.1 Programme Information

This department offers an Extended Curriculum learning programme for the ND: Dental Technology. On the basis of the placement assessments, successful applicants for study towards the National Diploma will be accepted into either the three-year minimum; or an augmented, four-year minimum, of study. An augmented, Extended Curriculum has been devised to enhance student development and to improve the student's chances of successful completion.

5.2 LEARNING PROGRAMME STRUCTURE

Code	Subjects	NQF Level	CA/E*	DoE Credits	SAQA Credits	Pre-requisite
Study Level 1						
CMCA102	Communication I	6	CA	0.020	9.6	Admission requirements
OANA101	Oral Anatomy I	6	CA	0.040	9.6	
TMOR101	Tooth Morphology I	6	CA	0.040	9.6	
IADT112	Introduction to Applied Dental Technology (Year 1)	6	CA	0.300	9	
IADT122	Introduction to Applied Dental Technology I (Year 2)	6	CA	0.100	9	Introduction to Applied Dental Technology (Year 1)
DDRC101	Dental Drawings and Carvings	6	CA	0.280	11	Admission Requirements
DCLT101	Dental Computer Literacy	6	CA	0.220	6	
DMSC102	Dental Materials Science I	6	CA	0.250	42	Introduction to Applied Dental Technology (Year 1), Dental Drawings and Carvings Dental Computer Literacy
DTTH101	Dental Technology Theory I	6	CA	0.150	28.8	
APDT101	Applied Dental Technology I	6	CA	0.100	20.4	
PHCD111	Physics & Chemistry I (Mod 1)	6	E	0.050	7	
PHCD121	Physics & Chemistry I (Mod 2)	6	E	0.050	15	
Study Level 2						
DMSC211	Dental Materials Sciencell (Module 1)	6	E	0.145	24	Dental Materials Science I, Dental Technology I
DMSC221	Dental Materials Science II (Module 2)	6	E	0.145	24	Dental Materials Science II (Mod I)
DTTH211	Dental Technology Theory II (Mod 1)	6	CA	0.080	15	Dental Technology Theory I
DTTH221	Dental Technology Theory II (Mod 2)	6	CA	0.080	15	Dental Technology Theory I
APDT201	Applied Dental Technology II	6	CA	0.180	30	Tooth Morphology I Applied Dental Technology I Introduction to Applied
JURI111	Jurisprudence I (Module 1)	6	E	0.050	6	
JURI121	Jurisprudence I (Module 2)	6	E	0.050	6	Jurisprudence I (mod 1)
Study Level 3						
BPRD101	Business Practice I	6	CA	0.100	12	
DMSC301	Dental Materials Science III	6	CA	0.250	42	Dental Materials Science II Oral Anatomy

DTTH311	Dental Technology Theory III (Mod 1) (Crown/Bridge & Orthodontics)	6	CA	0.095	16.8
DTTH321	Dental Technology Theory III (Mod 2) (Chrome & Prosthetics)	6	CA	0.095	16.8

* CA= Continuous Assessment; E = Examination at end of Subject / Module.

5.3 PROGRAMME RULES

5.3.1 Minimum Admission Requirements

In addition to Rule G7 the minimum entrance requirement for entry into the programme of study is a National Senior Certificate (NSC) with endorsement for degree entry with the following subjects:

Subject	NSC Rating
English (home) OR English (1st additional)	3
Physical Sciences OR	3
Mathematics OR	3
Mathematics Literacy	6
And two 20 credit subjects (not more than one language)	3

The minimum requirement for holders of the Senior Certificate is matriculation exemption with the following subjects at the stated ratings:

Compulsory Subjects	HG	SG
Mathematics OR Physical Science	E	C

The latter also applies to NC (V) level four (4) candidates.

The DUT General Rules G7 (3) will apply for admission requirements based upon Work Experience, Age and Maturity and Recognition of Prior Learning. The DUT's Admissions Policy for International Students and General Rules G4 and G7 (5) will apply for admission of International students.

5.3.2 Selection Criteria

In accordance with Rule G5, acceptance into the programme is limited to 29 places. As more qualifying applications are received than can be accommodated, 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 12 June / trial marks will be used for current matriculants) together with a submission of a portfolio. Shortlisted students will then be invited to undergo placement testing. Applicants who pass the placement tests are invited for an interview. 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 in the SC / NSC and DUT placement tests.

5.3.3 Pass Requirements

Students registered in the extended curriculum programme will only be eligible for subsequent registration provided that:

5.3.3.1 A student passes 5 out of the 6 registered subjects.

5.3.3.2 A student passes the following 3 of the 6 subjects:

- Introduction to Applied Dental Technology (IADT101),
- Dental Computer Literacy (DCLT101),
- Dental Drawings and Carvings (DDRC101)

NOTE: The specific rules for ND: Dental Technology (ECP) are stipulated above. In addition, the rules pertaining to the ND: Dental Technology under section 4.3.3 to 4.3.9 apply.

6. B TECH: DENTAL TECHNOLOGY (BTDNT1)

6.1 PROGRAMME INFORMATION

The B Tech programme is a single year qualification, which enables successful students to become registered (SADTC) laboratory owners. A final practical assessment is conducted which, if completed successfully, enables the qualified student to register with the SADTC. All subjects in this programme do not have a final examination. The results for these subjects are determined through a weighted combination of assessments. As such, there are no supplementary examinations. Students are encouraged 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. Moderation follows the DUT requirements.

6.2 LEARNING PROGRAMME STRUCTURE

Code	Subjects	NQF Level	CA/E*	Credits	SAQA credits
	Study level 4				
RMDT101	Research Methods & Techniques I	7	CA	0.200	24
BPRD201	Business Practice II	7	CA	0.200	24
DMSC411	Dental Materials Science IV (Module 1) (Theory)	7	CA	0.125	15
DMSC421	Dental Materials Science IV (Module 2) (Research Report)	7	CA	0.125	15
DTTH411	Dental Technology IV (Module 1) (Crown & Bridge and Orthodontics)	7	CA	0.088	42
DTTH421	Dental Technology IV (Module 2) (Chrome and Prosthetics)	7	CA	0.088	
DTTH431	Dental Technology IV (Module 3) (Practical)	7	CA	0.175	

* CA= Continuous Assessment; E = Examination at end of Subject / Module.

6.3 PROGRAMME RULES

6.3.1 Entrance Requirements:

National Diploma: Dental Technology or an equivalent qualification

6.3.2 Pass Requirements

6.3.2.1 A student Dental Technologist must complete the BTech: Dental Technology within two (2) years. This is a South African Dental Technicians Council rule, as well as that of the Durban University of Technology.

6.3.2.2 Subject Rules

Dental Materials Science IV

The subject consists of two modules:

- Module 1: Theory

Assessment	Weighting	Sub minimum
Assessment 1	30%	
Assessment 2	40%	40%
Assignment	20%	50%

- Module 2: Research Project

Assessment	Weighting	Sub minimum
Research Abstract	10%	40%
Research Poster	20%	45%
Journal paper	70%	50%

Each module will contribute fifty percent (50%) towards the final mark.

Both modules must be passed in the same academic year.

With reference to Module 2, a student not obtaining the required standard at submission date will be allowed to re-submit before January of the following year, but will fail the current year.

Dental Technology Theory IV

The subject consists of two modules each containing two study units:

- Module 1: Study Unit 1 - Crown & Bridge and Study Unit 2: Orthodontics;
- Module 2: Study Unit 1 - Chrome and Study Unit 2: Prosthetics

Both modules run for the entire year (annual)

Both modules must be passed in the same academic year.

Final marks for each study unit will be determined as follows:

Assessment	Weighting
Assessment 1	30%
Assessment 2	40%

Note for each Study Unit:

- A subminimum pass mark of forty percent (40%) is required for Assessment 1 and Assessment 2.
- A subminimum of fifty percent (50%) will apply to assignments / presentations.

NOTE: In addition to the above, the rule pertaining to the ND: Dental Technology - 4.3.3.7 applies.

Dental Technology IV (Module 3) (Practical) is divided into four (4) study units, namely: Crown & Bridge; Orthodontics; Cobalt Chrome; and Prosthetics

Dental Technology IV (Practical)

Subjects consist of 4 study units.

Final marks for each study unit will be determined as follows:

Assessment	Weighting	Sub minimum
Assessment 1	30%	
Assessment 2	30%	50%
Class work	40%	40% required

Business Practice II

The course will be evaluated by continuous evaluation. No formal examinations will be written. Students will be evaluated by submitting a formal business plan as well as a group assignment and an accounting equation written test.

Assessment	Weighting	Sub minimum
Mal exhibition	20%	40%
Business Report	80%	40%

Research Methods & Techniques I (RMDT101)

This continuous assessment subject has no formal examinations.

Assessment	Weighting	Sub minimum
Concept paper	30%	40%
Research proposal	70%	50%

NOTE: Research Methods & Techniques I is a co-requisite for Dental Materials IV (Module II) (Research Project).

In addition to the above, the rule pertaining to the ND: Dental Technology - 4.3.3.7 applies.

7. BACHELOR OF HEALTH SCIENCES: DENTAL TECHNOLOGY (BHDNT1)

7.1 PROGRAMME INFORMATION

A Bachelor of Health Sciences Degree in Dental Technology enables successful students to become registered (SADTC) laboratory owners with the South African Dental Technicians Council (SADTC). A final practical assessment is conducted, in the concluding year of the programme, which, if completed successfully, enables the qualified student to register with the SADTC. All subjects do not have a final examination. Students are encouraged 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. Moderation follows the DUT requirements.

7.2 PROGRAMME RULES

7.2.1. Minimum Admission Requirements

In addition to Rule G7 the minimum entrance requirement is a National Senior Certificate (NSC) or a Senior Certificate (SC) or a National Certificate (Vocational) NC (V) that is valid for entry into a Bachelor's Degree and must include the following subjects at the stated minimum weightings below.

Subject	NSC Rating	Senior Certificate		NC(V)
		HG	SG	
English (home) OR English (1st additional)	4	D	B	70%
Physical Sciences AND	4	D	B	70%
Mathematics	4	D	B	70%
And two 20 credit subjects (not more than one language)	4	D	B	70%

Minimum Admission Requirements in respect of Work Experience, Age, Maturity, RPL and International Students.

The DUT general rule G7 (3) and G7(8) respectively will apply.

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

7.2.2. Selection Criteria

All applicants must apply through the Central Applications Office (CAO). In accordance with Rule G5, acceptance into the programme is limited. Since more qualifying applications are received than can be accommodated, the following selection process will apply:

- 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 12 June / trial marks will be used for current matriculants) together with a submission of a portfolio.
- Applicants who meet the minimum departmental requirements will be ranked and may be invited to a placement tests.
- Initial shortlisting for selection is based on the applicant's academic performance in Grade 12 and or Grade 11 results.
Note: Applicants whose application has been declined due to poor academic achievement in grade 11 may reapply to the programme should they be able to show improved academic performance in the final grade 12 examinations. Those applicants who wish to reapply should immediately notify the programme of the intention to reapply. In order for the application to be reconsidered, the applicant must submit the final grade 12 results to the Department as soon as these results are available.
- Applicants who pass the placement tests are invited for an interview. The point scores for each **National Senior Certificate (NSC)** subject or the **Senior Certificate (SC)** results is obtained by using the table below:

POINT SCORES

Results	NSC	Senior Certificate		NC(V)
		HG	SG	
90 – 99%	8	8	6	4
80 – 89%	7	7	5	4
70 – 79%	6	6	4	4
60 – 69%	5	5	3	3
50 – 59%	4	4	2	
40 – 49%	3	3	1	
30 – 39%	2			
0 – 29%	1			

Final selection is based on criteria and weightings in the table below.

WEIGHTINGS OF ASSESSMENTS

Assessment	Weighting
Matriculation Score	40%
Placement Test	50%
Interview	10%

Note: no points are allocated for ten (10) credit subjects.

- Selected applicants will be placed into either the four-year Degree or the five-year Extended Curriculum Programme.
- 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 automatically withdrawn.

7.2.3. Progression rules

In addition to Rules G14 and G16 the following is applicable:

As per table 7.3, students must pass all prerequisite modules before registration for the higher-level modules.

Linked Modules:

- A 45% sub-minimum is to be achieved on the average of the written tests.
- With reference to 1B Modules, the pass mark for Oral Anatomy, Tooth Morphology, Dental Materials Science, and Principles and Practices of I and II is an average of 50% between the two linked modules.

In addition to the DUT General Rule G17*, a first year student who fails 50% + 1* modules with an average of less than 40% in the failed modules at the end of Year 1 is not permitted to re- register in the Bachelor of Health Sciences in Dental Technology. De- registration from any subject is subject to the provisions of Rule G6 (2). Students wishing to re-apply must do so in writing to the department and may be required to undergo further placement testing.

*As per the Senate minutes of 23-11-2017

In addition to Rules G14*, G16*, G17 and G23B* the following is applicable.

1. Prior to the commencing with Dental Laboratory Practice in study period 7, a student must have passed all modules in study periods 1-6.
2. A student may not progress to study period 8 without passing all modules in study period 7.

7.2.4. First Aid Certificate

Students shall not be permitted to graduate unless they are in possession of a certificate in General First-Aid issued by a first-aid organization recognized by the South African Dental Technicians Council.

7.2.5. Re- Registration Rules

Rule G14 and G16 of the General Handbook for Students applies.

7.2.6. Exclusion Rules

Please refer to DUT Rule G17, a student who fails three or more modules with less than 40% in each of the failed modules is not permitted to reregister for the programme. De-registration from any module is subject to the provisions of rule G6(2).

7.2.7 Duration of Study

In accordance with the DUT Rule G23B (2) and Rule G23B (3), the minimum duration is four years, including any periods of dental laboratory practice and the maximum duration will be six years of registered study, including any periods of dental laboratory practice.

7.2.8. Interruption of Studies

Should a student interrupt their studies for a period of more than three consecutive years, the student will need to apply to the department for permission to reregister and will need to prove relevance of appropriate knowledge prior to being given permission to continue with registration.

7.2.9 SADTC Registration

Students will be registered as a student dental technicians with the SADTC on an annual basis.

7.2.10 Materials Purchases

Students are supplied with materials for practical training.

Students are required to purchase additional materials for repeat practical exercises. Money for materials purchases is to be deposited with the official Durban University of Technology cashiers into account number FDTs 301374. A duplicate receipt is to be requested from the cashier which then needs to be

presented to the departmental secretary who will process the payment on the internal departmental system.

7.2.11 Rules for Practical Tests and Examinations

A. Preparation procedures prior to the commencement of the test and/or examination.

- A.1. All models, examples, teaching aids, previous work done by the students must be cleared out of the laboratory at least one day prior to the commencement of the test/examination. This is to ensure that no outside help or unfair advantage can be gained by the students. Students are to make their own arrangements as to what they should do with these articles cleared from the laboratory.
- A.2. All materials, personal tools and equipment required for the practical must be on hand and in working order.
- A.3. The invigilator must ensure that all models must be laid out or on-hand and clearly marked for the test / examination.

B. Test and/or examination day.

- B.1. No students may bring any hand-bags or lunch boxes into a test or an examination. Students are to make their own arrangements as to what they should do with these articles.
- B.2. Students enter, go to their work stations, and layout and prepare their tools and instruments.
- B.3. The following will be read out prior to the text/examination papers being handed out: "This is an official test/examination of the Department of Dental Sciences as constituted by the Durban University of Technology. All rules of the Institution pertaining to tests and examination apply. These rules are to be found in the Rule Book for students of the Institution and are available to students on request. Those students contravening these rules will be prosecuted in terms of the rules of the Durban University of Technology by the Institution's disciplinary tribunal." (Note to invigilator: In the case of an examination a list of instructions to be read to students will be supplied by Examinations Office and must be read out as well as B.3).
- B.4. Time of arrival to major practical tests, any student arriving late will be allowed into the laboratory only up to one hour after the commencement of the test. Such a student will not be allowed extra time.

C. The following laboratory rules & procedures will apply:

- C.1. No additional tools, instruments, models or equipment may be brought into the laboratory during the duration of the test/examination. Any additional materials required by the student to complete the test/examination may only be brought into the venue under the supervision of the invigilator. No tools, instruments, materials, models or equipment may be taken out of the laboratory until the end of the test/examination and after all, work has been taken in for marking.
- C.2. At lunch time the invigilator will inform the students to stop working. All gas

taps are to be turned off and the students are to stand by their workstations and await the invigilator's instructions. Upon checking each student's work the invigilator will give the student permission to leave the laboratory.

At the end of the lunch break, the invigilator will allow the students to re-enter and carry on from where they left off.

D. At the end of the day:

- D.1. The invigilator will inform the students to stop working.
- D.2. All students will tidy their work stations and layout their work-in-progress on their workbenches.
- D.3. All students will then clean the laboratory to the satisfaction of the invigilator.
- D.4. After the laboratory has been cleaned, the student will stand by their work stations and the invigilator will check all work to ensure that everything is present. The onus is on the student to ensure that all his/her work is present on the bench for inspection. The student will then be told that he/she can go and must leave the laboratory immediately. The student's work is to be left on the top of his/her workbench. If the student has a muffle to go into the overnight furnace, the student must go to the casting room with the muffle and wait there for the invigilator.
- D.5. After all the students have left, the invigilator will secure and lock the laboratory.

E. A student may not:

- E.1. Touch or handle another student's work;
- E.2. Discuss his/her work or another student's work with another student;
- E.3. Leave the test/examination room FOR WHATEVER REASON without the permission of the designated invigilator;
- E.4. Work at another student's work station;
- E.5. Invest or cast another student's work, either together or separately with their own work.
- F. A student completing the work prior to the end of the test or examination may inform the invigilator that he/she is finished. He/she must then tidy his/her workstation and hand in his/her completed work. The student must then leave the laboratory immediately. At the end of the test or examination, the student must return and help to clean the laboratory.

G. At the end of the test/examination, the invigilator will stop the students from working. Students are then required to clean the laboratory. When the laboratory is clean, the invigilator will take in the student's work. It is the student's responsibility to see that all his/her work is clearly marked with his/her name or number.

H. Students are to hand in their own work. Test/examination work MAY NOT be handed in by another student.

I. Casting procedure

- I.1 A student may only cast his/her own work.
- I.2 The student will ensure that his/her muffle and casting ring is clearly marked with his/her name or number.

- I.3 In the event that a student casts another student's muffle and casting ring his/her own muffle and casting ring will be withdrawn and he/she will have to start that section of work again. If the other student's muffle is a miscast, he/she will be allocated extra time only at the discretion of the Head of Department.
- I.4 All castings need to be performed in the presence of the invigilator. When ready to cast please inform the invigilator. Failure to do so will result in your casting being withdrawn.
- J. Flasking and Packing of Dentures**
The student will ensure that his/her flasks and clamps are clearly marked or labelled with his/her name or number. In the event that a student packs or flasks another student's work, his/her own work will be withdrawn and he/she will have to start that section of the work again. If the other student's work has been damaged, he/she will be allocated extra time at the discretion of the Head of Department.
- K Procedure for packing overnight furnace**
When a student wants a muffle or casting ring to go into the overnight furnace he/she will take the muffle or cast ring to the casting room after his/her work station has been checked at the end of the day. The invigilator will then pack the furnace and set the times and temperature. Each student will note the position of his/her muffle or casting ring in the furnace and the casting in the morning will be in the reverse sequence to the placing of the muffles or casting rings the night before.
- L** After the invigilator has confirmed that students acknowledge the rules as displayed on the class notice board and those additional rules and/or instructions (where necessary) have been verbally explained, the paper is issued and the test/examination will start.

7.3 Learning Programme Structure

Bachelor of Health Sciences in Dental Technology

FIRST YEAR: FIRST SEMESTER						
STUDY PERIOD	MODULE TITLE	MODULE CODE	HEQSF LEVEL	SAQA CREDITS	C/E	PREREQUISITES
SP1	PRINCIPLES AND PRACTICES OF DENTAL TECHNOLOGY I (MOD I)	PPDT111	6	12	C	Admission requirements
SP1	DENTAL MATERIALS SCIENCE I (MOD I)	DMTS111	6	12	C	
SP1	ORAL ANATOMY (MOD I)	INOA111	6	8	C	
SP1	TOOTH MORPHOLOGY (MOD I)	ITOM111	6	8	C	
SP1	CHEMISTRY	CHMS101	6	12	C	
SP1	DENTAL SKILLS DEVELOPMENT		6	12	C	
SP1	COMMUNITY HEALTH CARE AND RESEARCH I PERSONAL AND PROFESSIONAL DEVELOPMENT I	CHCR101 PFDV101	6 6	12	C	
FIRST YEAR: SECOND SEMESTER						
SP2	PRINCIPLES AND PRACTICES OF DENTAL TECHNOLOGY I (MOD II)	PPDT121	5	12	C	PPDT111
SP2	TOOTH MORPHOLOGY (MOD II)	ITOM121	6	8	C	ITOM111
SP2	ORAL ANATOMY (MOD II)	INOA121	6	8	C	INOA111
SP2	DENTAL MATERIALS SCIENCE I (MOD II)	DMTS121	6	8	C	DMTS111
SP2	CORNERSTONE 101	CSTN101	6	12	C	
SP2	PHYSICS	PSCS101	6	12	C	

8. BACHELOR OF HEALTH SCIENCES: DENTAL TECHNOLOGY: EXTENDED CURRICULUM PROGRAMME(ECP)

8.1 Programme Information

A Bachelor of Health Sciences Degree in Dental Technology Extended Curriculum Programme which enables successful students to become registered (SADTC) laboratory owners with the South African Dental Technicians Council (SADTC). A final practical assessment is conducted, in the concluding year of the programme, which, if completed successfully, enables the qualified student to register with the SADTC. All subjects do not have a final examination. Students are encouraged 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. Moderation follows the DUT requirements.

8.2 Programme Rules

8.2.1 Minimum Admission Requirements

In addition to Rule G7 the minimum entrance requirement is a National Senior Certificate (NSC) or a Senior Certificate (SC) or a National Certificate (Vocational) NC (V) that is valid for entry into a Bachelor's Degree and must include the following subjects at the stated minimum weightings below.

Subject	NSC Rating	Senior Certificate		NC(V)
		HG	SG	
English (home) OR English (1st additional)	4	D	B	70%
Physical Sciences AND	4	D	B	70%
Mathematics	4	D	B	70%
And two 20 credit subjects (not more than one language)	4	D	B	70%

Minimum Admission Requirements in respect of Work Experience, Age, Maturity, RPL and International Students.

The DUT general rule G7 (3) and G7(8) respectively will apply.

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

8.2.2 Selection Criteria

All applicants must apply through the Central Applications Office (CAO). In accordance with Rule G5, acceptance into the programme is limited. Since more qualifying applications are received than can be accommodated, the following selection process will apply:

- 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 12 June / trial marks will be used for current matriculants) together with a submission of a portfolio.
- Applicants who meet the minimum departmental requirements will be ranked and may be invited to a placement tests.
- Initial shortlisting for selection is based on the applicant's academic performance in Grade 12 and or Grade 11 results.
Note: Applicants whose application has been declined due to poor academic achievement in grade 11 may reapply to the programme should they be able to show improved academic performance in the final grade 12 examinations. Those applicants who wish to reapply should immediately notify the programme of the intention to reapply. In order for the application to be reconsidered, the applicant must submit the final grade 12 results to the Department as soon as these results are available.
- Applicants who pass the placement tests are invited for an interview.

The point scores for each **National Senior Certificate (NSC)** subject or the **Senior Certificate (SC)** results is obtained by using the table below:

POINT SCORES

Results	NSC	Senior Certificate		NC(V)
		HG	SG	
90 – 99%	8	8	6	4
80 – 89%	7	7	5	4
70 – 79%	6	6	4	4
60 – 69%	5	5	3	3
50 – 59%	4	4	2	
40 – 49%	3	3	1	
30 – 39%	2			
0 – 29%	1			

**Note: no points are allocated for ten (10) credit subjects.
Final selection is based on criteria and weightings in the table below.**

WEIGHTINGS OF ASSESSMENTS

Assessment	Weighting
Matriculation Score	40%
Placement Test	50%
Interview	10%

- Finally, selected applicants are required to visit a dental laboratory. Failure to provide proof of dental laboratory visitation by the due date as determined by the Department will render the application unsuccessful.
- Selected applicants will be placed in the five- year Extended Curriculum Programme.
- 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 automatically withdrawn.

8.2.3 Progression rules

In addition to Rules G14 and G16 the following is applicable:

As per table 8.3, students must pass all prerequisite modules before registration for the higher-level modules.

In addition to the DUT General Rule G17*, a first year student who fails 50% + 1* modules with an average of less than 40% in the failed modules at the end of Year I is not permitted to re- register in the Bachelor of Health Sciences in Dental Technology. De- registration from any subject is subject to the provisions of Rule G6 (2). Students wishing to re-apply must do so in writing to the department and may be required to undergo further placement testing.

*As per the Senate minutes of 23-11-2017

In addition to Rules G 14*, G16*, G 17 and G23B* the following is applicable.

1. Prior to the commencing with Dental Laboratory Practice in study period 9, a student must have passed all modules in study periods 1-8.
2. A student may not progress to study period 10 without passing all modules in study period 9.

Rules for practical Tests and/or Examinations

All students must comply with the departmental rules and procedures for practical tests and/or examinations as stated in the relevant departmental manual/study guide. Breach of these procedures may result in disciplinary action being taken.

Prior to the commencement of practical test and examinations, students will be made aware of the detailed rules and all students will be required to sign acknowledgement thereof.

8.2.4 First Aid Certificate

Students shall not be permitted to graduate unless they are in possession of a certificate in General First-Aid issued by a first-aid organization recognized by the S.A. Dental Technicians Council.

8.2.5 Re- Registration Rules

Rule G14 and G16 of the General Handbook for Students applies.

8.2.6 Exclusion Rules

Please refer to DUT Rule G17, a student who fails three or more modules with less than 40% in each of the failed modules is not permitted to reregister for the programme. De-registration from any module is subject to the provisions of rule G6(2).

8.2.7 Duration of Study

In accordance with the DUT Rule G23B (2) and Rule G23B (3), the minimum duration for the extended curriculum programme is five years, including any periods of dental laboratory practice and the maximum duration will be seven years of registered study, including any periods of dental laboratory practice.

8.2.8 Interruption of Studies

Should a student interrupt their studies for a period of more than three consecutive years, the student will need to apply to the department for permission to reregister and will need to prove relevance of appropriate knowledge prior to being given permission to continue with registration.

8.2.9 SADTC Registration

Students will be registered as a student dental technicians with the SADTC on an annual basis.

Dental Laboratory Practice

Students are referred to Rule G28.

1. **Dental Laboratory Practice** learning is a compulsory component of this qualification and the student is required to attend 24 weeks in an accredited laboratory as well as meeting certain outcomes as specified in the Study guide for this module.
2. A completed record book must be completed by the 31st March in the

fifth year of study and must detail and provide proof of all completed **Dental Laboratory Practice** learning activities.

3. Students are required to comply with the rules and regulations of the laboratory in which they are placed.
4. Disciplinary matters occurring in the laboratory will in the first instance be subject to the Laboratory's Disciplinary Code of Conduct and then be referred to DUT for student disciplinary action.

8.2.10 Materials Purchases

Students are supplied with materials for practical training.

Students are required to purchase additional materials for repeat practical exercises. Money for materials purchases is to be deposited with the official Durban University of Technology cashiers into account number FDTs 301374. A duplicate receipt is to be requested from the cashier which then needs to be presented to the departmental secretary who will process the payment on the internal departmental system.

8.2.11 Rules for Practical Tests and Examinations

Refer to section 7.2.1.1

8.3 LEARNING PROGRAMME STRUCTURE BACHELOR OF HEALTH SCIENCES: EXTENDED FIRST YEAR

ECP FIRST YEAR: FIRST SEMESTER						
STUDY PERIOD	MODULE TITLE	MODULE CODE	HEQSF LEVEL	SAQA CREDITS	C/E	PREREQUISITES
SPI	PRINCIPLES AND PRACTICES OF DENTAL TECHNOLOGY (MODULE 1)	TBA	6	16	C	
SPI	DENTAL SKILLS DEVELOPMENT (MODULE 1)	TBA	6	12	C	
SPI	INTRODUCTION TO TOOTH MORPHOLOGY (MODULE 1)	TBA	6	12	C	

SP1	PERSONAL AND PROFESSIONAL DEVELOPMENT I / ENVIRONMENTAL AWARENESS FOR HEALTH PROFESSIONALS}	TBA	6	12	C	
ECP FIRST YEAR: SECOND SEMESTER						
SP2	PRINCIPLES AND PRACTICES OF DENTAL TECHNOLOGY (MODULE II)	TBA	6	16	C	PRINCIPLES AND PRACTICES OF DENTAL TECHNOLOGY (MODULE I)
SP2	DENTAL ARTS AND CARVING	TBA	6	8	C	
SP2	INTRODUCTION TO TOOTH MORPHOLOGY (MODULE II)	TBA	6	8	C	INTRODUCTION TO TOOTH MORPHOLOGY (MODULE I)
SP2	CORNERSTONE 101	CSTN101	6	12	C	

9. MASTER'S OF HEALTH SCIENCES TECHNOLOGY: DENTAL TECHNOLOGY (MHDNT I)

9.1 PROGRAMME INFORMATION

This full research qualification is aligned to Rule G24 in the General Student Handbook. This 180 credits qualification is offered at SAQA Level NQF level 9. The student will conduct independent research under guidance in Dental Technology, and contribute to knowledge production in that field. The research problem, its justification, process and outcome is reported in a dissertation, which complies with the generally accepted norms for the research at that level. Ultimately, the graduate will make a valuable contribution to the existing body of knowledge and initiate change that will help to develop and advance the profession of Dental Technology. *The minimum duration of the programme is one (1) of study and the maximum duration is three (3) years of study.*

9.2 PROGRAMME RULES

9.2.1 Admission Requirements

In accordance with Rule G5 in the General Student Handbook, acceptance into the programme is limited, and entry into the Master of Health programme is not automatic. In addition to Rule G24 (1), candidates must be in possession of a Bachelor's Degree in Dental Technology or an equivalent qualification, or have been granted status or advanced standing according to Rule G10. All international applicants need to have their qualifications evaluated by the South African Qualification Authority (SAQA).

Furthermore, the applicant needs to complete all internal application and selection processes as required by the Department's Research Committee.

9.2.2 Pass Requirements

Please refer to Rule G24.

9.2.3 Re-registration Rules

Rule G24 (2), Rule G26 (5) and the General Student Handbook.

9.2.4 Exclusion Rules

Rule G24 (1)(d); Rule G24 (2), and the General Student Handbook.

9.2.5 Interruption of Studies

In accordance with Rule G24, the minimum duration for this programme will be one (1) year of registered study and the maximum duration will be three (3) 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.

The applicant also needs to complete all internal application processes as required by the department's research committee.

10. DOCTOR OF DENTAL TECHNOLOGY (DDentalTech)

10.1 PROGRAMME INFORMATION

This research intensive qualification is aligned to Rule G25 in the General Student Handbook. This 360 credits qualification is offered as SAQA Level NQF level 10. The degree of Doctor of Science is awarded on the basis of the submission of a thesis. The thesis should provide evidence of the student: Being able to make an original and substantial contribution to the body of knowledge through the use of appropriate research principles and methods; Gaining knowledge and skills needed to apply scientific research methods independently and critically; Demonstrating competence in technical skills relevant to Dental Technology, and high level or personal autonomy, commitment and accountability in the design and execution of research; Think globally and consider issues from a variety of perspectives and apply international standards and practices within Dental Technology; and Demonstrating principles of ethical reasoning and professional responsibility. The thesis must comply with the normal technical requirements and rules with regard to scope, quality and layout.

10.2 PROGRAMME RULES

10.2.1 Minimum Admission Requirements

In addition to Rule G25 (1) in the General Student Handbook, persons must be in possession of a Master of Health Sciences in Dental Technology or equivalent, or have been granted status or advanced standing according to Rule G10. Please also refer to the Postgraduate Student Handbook.

Furthermore, the applicant needs to complete all internal application and selection processes as required by the Department's Research Committee.

10.2.2 Pass Requirements

Refer to Rule G25 (4) in the General Handbook for Students

10.2.3 Re-registration Rules

Please refer to Rule G26 (5) and the Postgraduate Student Handbook.

10.2.4 Exclusion Rules

Please refer to Rules G25 (2) (B; C (ii)) in the General Student Handbook.

10.2.5 Interruption of Studies

In accordance with Rule G25 (2), the minimum duration for this programme will be two (2) years of registered study and the maximum duration will be four (4) 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. Please refer to the Postgraduate Student Handbook.

SECTION B: DENTAL ASSISTING

11. HIGHER CERTIFICATE: DENTAL ASSISTING (HCDNA1) [Full Time: One Year Qualification]

11.1 Programme Information

Certain subjects in this qualification do not have a final examination. The results for these subjects are determined through a weighted combination of assessments. As such, there are no supplementary examinations. Students are encouraged 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. Moderation follows the DUT requirements.

11.2 LEARNING PROGRAMME STRUCTURE

Code	Subjects	HEQS F Level	SAQA Credits	Year of Study	Credits Noted	CA/E*
CSTN101	Cornerstone			I	.094	E
DAPA101	Dental Assisting Practical IA			I	.093	CA
DATA101	Dental Assisting Theory IA			I	.126	CA/ E
DNPM101	Dental Practice Management			I	.094	E
OAPA101	Oral Anatomy and Pathology IA			I	.093	CA/ E
DACPI01	Dental Assisting Clinical Practice			I	0125	CA
DAPB101	Dental Assisting Practical IB			I	.093	CA
DATB101	Dental Assisting Theory IB			I	.126	CA/ E
OAPB101	Oral Anatomy and Pathology IB			I	.093	CA/ E
PHDA101	Pharmacology for Dental Assisting			I	.063	CA/ E

* CA —Continuous assessment / E —Examination

11.3 PROGRAMME RULES

11.3.1 Minimum Admission Requirements

In addition to Rule G7 the following apply:

The minimum entrance requirement for entry into programme: Higher Certificate in Dental Assisting is a National Senior Certificate (NSC), a Senior Certificate or a National Certificate (Vocational) (NC(V)), and must include the following subjects at the stated minimum ratings below:

Subject	NSC Rating
English (home) OR English (1st additional)	3
Life Sciences OR Physical Sciences	3
Mathematics OR Mathematics Literacy	3 5
and two 20 credit subjects, of which not more than one may be a language	3

The minimum requirement for holders of the Senior Certificate into the programme: Higher Certificate in Dental Assisting is matriculation exemption with the following subjects at the stated ratings:

Compulsory Subjects	HG	SG
English	E	C
Mathematics	E	C
Biology OR Physical Science	E	C
and two 20 credit subjects, of which not more than one may be a language	E	C

11.3.2 Selection Procedures

In accordance with Rule G5, acceptance into the programme is limited to seventy five (75) places. As more qualifying applications are received than can be accommodated, the following selection process will determine placement in the programme:

All applicants must apply through the Central Applications Office (CAO). Preference is given to those who have Dental Assisting as their first choice. 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).

All applicants that meet the above requirement will be notified and will be required to complete and submit documentation to the Dental Assisting Programme.

Applicants who are successful following the interview will then be ranked according to the table below:

Assessment	Weighting
Results of the NSC, SC or NC(V) certificate	50%
Certificate of attendance from a dental surgery	10%
Submitted documentation	10%
Interview	30%

Shortlisted students will be invited to undergo placement testing. Applicants who pass the placement tests are invited for an interview.

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 in the SC / NSC and DUT placement tests.

11.3.3 Pass Requirements

Notwithstanding the DUT pass requirements (G14 and G15), students are encouraged to apply themselves to their learning, and strive for the best academic results possible in order to adequately prepare themselves for their future careers, and to maximize possible employment opportunities.

11.3.4 Uniform

It is compulsory for all students to wear the prescribed uniform. Failure to do so will result in disciplinary action. Dental Assisting students are expected to be appropriately attired when attending clinical sessions. This includes the use of gloves, masks, eyewear, gowns, etc.

11.3.5 First Aid Certificate

Students shall not be permitted to graduate unless they are in possession of a current Level 2 First Aid Certificate at the time of completing the Dental Assisting programme. The first aid certificate will be arranged and paid for by the programme. Students missing the course for any reason will be expected to obtain the required certificate at their own cost and in their own time.

11.3.6 Hepatitis B

All students registered for the programme are required to complete a course of Hepatitis B inoculations arranged and paid for by the department.

11.3.7 Duration of Programme

In accordance with the DUT Rule G20B*, minimum duration is one year of registered study, including any periods of clinical practice and maximum duration will be two years including any periods of clinical practice.

11.3.8 Exclusion Rules

In addition to the DUT General Rule G17*, a student who fails 50% or more of the subjects registered in the initial year of study with a final mark of less than 40% in the failed subjects will not be permitted to re-register in Dental Assisting programme. De-registration from any subject is subject to the provisions of Rule G6 (2)*.

11.3.9 Interruption of Studies

Should a student interrupt their studies for a period of more than two (2) consecutive years, the student will need to apply to the department for permission to re-register and will need to prove currency of appropriate knowledge and skills prior to being granted permission to continue with registration.

12. SUBJECT CONTENT AND ASSESSMENTS

NB: Students are to read this section in conjunction with the relevant study guide.

ND: DENTAL TECHNOLOGY &

ND: DENTAL TECHNOLOGY EXTENDED PROGRAMME (ECP)

ORAL ANATOMY (OANA101)

Assessment Plan

Assessments - 80%

Assignments - 20%

Topics Covered

Introduction to oral anatomy. Surface anatomy. The mucous membrane.

The human skull, including the Maxillae, Mandible and their relationship to the teeth.

The Temporomandibular joint.

Muscles. Border movements of the mandible. The salivary glands. Diseases of the oral cavity.

Nerves.

Blood supply to the oral cavity. Lymphatic drainage of the Head and Neck. Dental histology.

TOOTH MORPHOLOGY (TMOR101)

Assessment Plan

Assessments - 70%

Assignments/Practica Tasks - 30%

Topics Covered

Dental Morphological Terminology. Permanent maxillary incisors. Permanent mandibular incisors. Permanent canines.

Permanent maxillary premolars. Permanent mandibular premolars, Permanent maxillary molars.

Permanent mandibular molars. Tissues of the teeth and pulp cavities of permanent teeth.

Oral anatomy related to oral function. Chewing. Occlusion and malocclusion. The primary dentition.

Dental anomalies. Forensic Dentistry.

APPLIED DENTAL TECHNOLOGY I (APDT101)

Assessment Plan

Class work - 40%

Assessments - 60%

Topics Covered

The handling of gypsum products and wax products, Pouring, trimming and finishing of models, Special (custom) trays. Occlusal rims. Articulation. The setting up of artificial teeth and festooning, Post-Dams. Flasking, packing and polishing, Selective grinding. Acrylic denture repairs,

APPLIED DENTAL TECHNOLOGY II (APDT201)

This subject consists of four discipline-specific areas of equal weighting namely:

Crown & Bridge, Orthodontics, Cobalt Chrome & Prosthetics.

Assessment Plan

Class work - 40%

Assessment - 60%

A 40% subminimum mark per discipline (**Crown & Bridge, Orthodontics, Prosthetics and Chrome**) is required and a final pass mark of 50%, and above, is needed to pass this subject overall.

Laboratory based Content Covered:

Prosthetics

Aesthetically functional denture set-ups. Complete upper or lower denture against opposing natural teeth.

Insertion of palatal and other strengtheners. Technique for Clear palate dentures. Resilient denture bases.

Denture Inlays. Basic acrylic partial denture cases. Clinical cases.

Cobalt Chrome

Removable partial dentures, Construction of chrome cobalt partial dentures with the emphasis on survey and block out.

Orthodontics

Diagnostic models, Springs for mesiodistal movement, Springs for buccal movement, Springs for lab lingual movement

Springs for reduction of overjet & alignment of incisors, Base plate and bite planes, Screw type appliances, Clasps

Crown and Bridge

Pin, Base & ditching of models, Working casts and dies, Wax Patterns, Spring, investing, casting and finishing, Posts, Soldering and constructing a three-unit full metal bridge, Metal Inlays/Onlays
Temporary Crowns

APPLIED DENTAL TECHNOLOGY III (APDT301)

Assessment Plan

Class work - 40%

Assessment - 60%

A 50% subminimum mark per discipline (**Crown & Bridge, Orthodontics, Prosthetics and Chrome**) is required and a final pass mark of 50%, and above, is needed to pass this subject overall.

Laboratory based Content Covered:

Prosthetics

Semi-adjustable articulator. Fully balanced occlusion. Denture characterisation. Immediate dentures. Denture duplication. Partial dentures. Class II and Class III malocclusion.

Overdentures tooth and implant supported. Splints, stents and surgical templates. Clinical cases, Maxillofacial: Obturators and variations.

Cobalt Chrome

Removable partial dentures, Construction of chrome cobalt partial dentures with the emphasis on casting, working off, and fitting cobalt chrome dentures. A brief overview of acrylic work on

cobalt chrome dentures.

Orthodontics

Spring and screw expansion appliances, Habit preventers, Advanced orthodontic springs
Intermaxillary and extra oral traction, Fixed orthodontic appliances, Mouth guards

Crown and Bridge

Fixed bridges in porcelain. Bridge design. Pontics and connectors. Spruing, investing, casting and finishing. Posts Retained bridges. The cast metal ceramic crown and bridge design. Cast metal ceramic crown and bridge construction. Porcelain application and repair techniques. Porcelain application to single units. Porcelain margin application.

DENTAL MATERIALS SCIENCE I (DMSC I02)

Assessment Plan

Assessment - 65%

Assignments - 35%

Topics Covered

History of Dental Technology. Introduction to dental materials and their properties, Gypsum products, Impression materials, Denture base resins, Waxes, Separating media. Denture cleaners, Dental Instruments, Abrasion and polishing.

DENTAL TECHNOLOGY THEORY I (DTTH I01)

Assessment Plan

Assessment - 80%

Assignments - 20%

Theory Content Covered

Introduction to false teeth. Introduction to removable prosthodontic techniques. Landmarks of the edentulous mouth. Preliminary impressions and casts. Anatomical changes associated with the loss of teeth. Special/custom trays. Master/final/secondary casts/models. Occlusal rims. Articulators, Artificial tooth arrangement. Festooning (waxing up). Post-Dams, Retention, stability and support of complete dentures. Flasking & packing complete dentures. Selective grinding. Pumicing and polishing of dentures. Acrylic repairs. Speech

DENTAL TECHNOLOGY THEORY II (DTTH 211/221)

Assessment Plan

Assessment - 80%

Presentation & Assignments 20%

Topics Covered

Crown and Bridge

Introduction to fixed restorations, Crown & Bridge Systems, Crown & Bridge wax-up, Sprue, Invest & Casting metal crowns, Different types of margin preparations, Occlusal arrangement/Pathological Occlusion, Occlusal interferences
Porosity, Bridges, Design principles of posts, Temporary crowns & Metal inlays, Technological advancements in Crown & Bridge

Orthodontics

Introduction, Definition of orthodontics, Orthodontic stainless steel and stainless steel wire
Orthodontic appliance and removable appliances, Normal occlusion and morphology of normal occlusion

Occlusal and orthodontic forces, Development of primary and permanent dentition, Tissue changes

Malocclusion of teeth, Classification of malocclusion, Anchorage force and retention

Principles of orthodontic treatment, Case discussions

Cobalt Chrome

Removable partial dentures, Advantages of a metal partial denture. Brief overview of the components of a RPD.

Classification of RPD. Introduction to design of RPD. An in-depth study of major connectors.

An in-depth study of rests. An in-depth study on retainers. Guide plates and acrylic retentions.

Prosthetics

Terminology related to Complete Denture Prosthetics. Model analyses. Complete Denture Occlusion. Aesthetics in dentures.

Palatal and other strengtheners. Clear palates. Resilient denture bases.

Inlays for artificial teeth. Saving materials in the dental laboratory.

DENTAL TECHNOLOGY THEORYIII (DTTH 311/321)

Assessment Plan

Assessment - 80%

Presentation & Assignments 20%

Theory Content Covered

Crown and Bridge

Introduction to fixed bridges. Biomechanics of fixed bridge. Bridge design and abutment selection. Cantilever Bridges, Tilted molar abutment. Pontics and connectors. Margin design. Spruing, investing, casting and finishing. Soldering and brazing metal ceramic bridges. Bridges. Temporary restorations.

Introduction to metal ceramics. Cast metal ceramic crown and bridge design (Optimizing aesthetics).

Cast metal ceramic crown and bridge construction. Porcelain application. Reducing stress in porcelain.

Diagnostic set-ups. Color in Ceramics

Orthodontics

Neuromuscular development of normal occlusion, Preventive orthodontics, Interceptive orthodontics, Habit breakers. Fixed appliances, Soldering and welding of stainless steel, Case discussions

Cobalt Chrome

Removable partial dentures, Duplicating. Spruing. Investing. Heating the muffle (Burn-Out).

Casting: Induction and flame. Constituents of a chrome cobalt alloy. Working off.

Electro polishing. Finishing the RPD. Fitting the RPD. Miscasts. Casting defects. Indirect Retention.

Preparation of the remaining dentition.

The RPI Bar concept. R.P.A. clasp systems.

Prosthetics

Semi-adjustable articulator. Fully balanced occlusion. Denture characterization, Immediate dentures. Denture duplication. Partial dentures. Class II and Class III malocclusion.

Clinical cases. Overdentures tooth & implant supported. Splints, stents and surgical templates.
Clinical cases.
Maxillofacial, Obturators and variations. Fractures of the facial bones.

INTRODUCTION TO APPLIED DENTAL TECHNOLOGY (IADT 112)

Assessment Plan

Theory	50%
Practical	50%

Topics Covered

Intro to Dental Theory, Gypsum products, Impressions, Models, Wax products, Special trays

DENTAL COMPUTER LITERACY (DCLT101)

Assessment Plan

Theory	80%
Library Literacy	20%

Topics Covered

Hardware, Software, Word Processing, Electronic Information Systems, Spreadsheets, World Wide Web

DENTAL DRAWINGS AND CARVINGS (DDRC101)

Assessment Plan

Tests	50%
Projects	50%

Topics Covered

Form, Drawing basic forms, Perspective drawing, Object drawing, (manmade and mechanical objects) Drawing of animal bones, drawing teeth, carving teeth in clay, carving teeth in wax.

COMMUNICATION (CMCA102)

The Assessment Plan

Test 1	25%
Test 2	25%
Assignment 3	25%
Test 4	25%
Examinations	25%

Topics Covered

Communication skills and professionalism. Assertive behaviour. Confidence in speaking. Appropriate and effective body language. Active listening. Writing skills. Reading skills. Effective communication.

Self-image and interpersonal relations. Conflict resolution skills. Negotiations. Inter-cultural communication.

BUSINESS PRACTICE I (BPRD101)

Assessment Plan

Theory Tests	40%
Examinations	60%

Topics Covered

Human Resources Management, Effective time utilization. Set up and maintain administrative systems.

Application of an applicable software programmes. Develop and use interactive skills. Industrial relations.

Establish goals (Self and organization). Problem solving and decision making. Conflict management.

Negotiation skills. Crisis management. Assertive behaviour. Performance Management, Labour Relations Act.

Health and Safety Act. Basic Conditions of Employment

Accounting, Basic accounting, Transactions and the accounting equation, Accounting definitions
Income statement and balance sheet, Analysis and interpretations, Bank reconciliation, Cash flows.

DENTAL MATERIALS SCIENCE II (DMSC211/221)

Assessment Plan

Theory Tests & Assignment 40%

Examinations 60%

Topics Covered

Elastic impression materials. Die materials. Casting Waxes. Casting Investments, Metal solidification & microstructure. Constitution of alloys. Casting procedures for dental alloys. Dental Casting alloys.

Electro polishing, Tarnish and corrosion, wrought metal alloys, Soldering and Welding, Rebase materials.

DENTAL MATERIALS SCIENCE III (DMSC301)

Assessment Plan

Assessment 80%

Presentation & Assignments 20%

Topics Covered

All ceramics. Platinum foil & refractory die materials for ceramic restorations. Heat Treatment, Thermoplastic materials.

Evaluation of articles and assignments, Osseointegration dental implant materials, Health factors in a dental laboratory

Porcelain, Noble metal - ceramic alloys, Base metal - ceramic alloys, Biological response to dental materials.

Bonding of ceramics

Selection and evaluation of metal ceramic casting alloys, Application of dental materials, Trouble-shooting

JURISPRUDENCE I (JURI 111/121)

Assessment Plan

Theory Tests and assignment 40%

Examinations 60%

Topics Covered

Objectives, functions and powers of the SADTC, Education, training and registration of Dental Technicians and laboratory.

Offences and the control over artificial teeth, Disciplinary powers of the Council

General and supplemental provisions, Regulations of the Council, Adherence to moral standards

Professional ethics code, Professional Image. Other legislative Laws and Acts that pertain to employed Dental Technicians, continuous professional development forms of ownership.

PHYSICS AND CHEMISTRY I (PHCD 111/121)

Assessment Plan (Physics)

Theory Tests 40%

Examinations 60%

Topics Covered

Introduction to Mechanics, Units, standards and measurements, Vectors, Motion, Introductory Kinematics

Equations of motion, Forces, Newton's Laws of Motion, Statics, Torque, Levers in the body:

Dental Applications

Equilibrium, Elastic Properties of Matter, Stress and Strain, Hooke's Law, Young's Modulus, Ultimate Strength

Shearing, Basic Fluid Mechanics, Density, Pressure, Viscosity, Equation of Continuity,

Archimedes' Principle

Thermal Properties of Matter, Heat and Temperature, Temperature scales, Heat Transfer,

Thermal Expansion

Specific Heat Capacity, Latent Heat, Light, Nature of Light, Reflection and Refraction, Dispersion, Colour

Assessment Plan (Chemistry)

Theory Tests 40%

Examinations 60%

Topics Covered

Matter. Chemical Equations and Stoichiometry. Solutions. Chemical Reactions. Reaction Rates

B TECH: DENTAL TECHNOLOGY

BUSINESS PRACTICE II (BPRD201)

Assessment Plan

Mall Exhibition 20%

Business Report 80%

Topics Covered

Strategic planning. Financial systems, Operating systems. Human resources. Marketing systems. Procurement systems. Quality control systems. Loss control systems. Effective time management.

Applicable software packages. Design a dental laboratory. Develop and use interactive skills.

Employer/employee relationship. Establish goals (Self and organization). Problem solving and decision making.

Conflict handling. Motivation. Crisis management. Client relations. Market research.

Assess economic viability. Creative and innovative thinking. Develop markets. Present business plan.

Develop organizational network. Effective advertising, Laboratory prescription card. Financing a business. Opening a small business. Computer lectures. Promoting your business. VAT and the Dental Laboratory. Partnerships, and Accounting equation.

DENTAL MATERIALS SCIENCE IV THEORY (DMSC411)

This subject is run as a continuous assessment and therefore:-
The pass mark for this subject is 50%.
There will be no formal examination at year-end.
Please refer to your discipline specific student guide for further details.

Assessment Plan

Assessments	80%
Assignment	20%

Content Covered

Biological response to dental materials; Occupational Health and Safety of Dental Materials; Dental Implant Materials; and Maxillofacial Dental Materials.

DENTAL MATERIALS SCIENCE IV (DMSC421- Module II) RESEARCH REPORT (See subject guide for specific details)

Assessment Plan

Research abstract	10%
Poster	20%
Research Report/Journal/Case Study	70%

Content Covered:

Writing of a Research Report/ Journal Article/Case Study by providing the: Background/Rationale/ Introduction; Literature Review; Research Design and Methodology; Results/Findings and Discussions; Conclusions and Recommendations; Referencing through EndNote and using Turnitin; Writing a research abstract for a research poster; and presenting research results to peers and to the wider DUT community.

DENTAL TECHNOLOGY IV (DTTH 411) Crown & Bridge & Orthodontics

Assessment Plan

Assessments	80%
Assignments	20%

Topics Covered

Crown and Bridge

All-ceramic systems; Metal-ceramic systems; Planning and design factors for large cases. Occlusion factors in ceramic restorations; The use of precision attachments and broken stress connectors in large cases; Combination cases with removable partial dentures and fixed restorations with milling and attachments; Implant borne metal-ceramic restorations; Design factors for practical cases.

Orthodontics

Principles of angle Class I treatment; Principles of angle Class II treatment; Principles of angle Class III treatment; Functional jaw orthopedics; Case discussions; Practical cases.

DENTAL TECHNOLOGY IV (DTTH421) Chrome & Prosthetics

Assessment Plan

Assessments	80%
Assignments	20%

Chrome

Removable partial dentures (Cobalt Chrome); Design principles of chrome cobalt partial

dentures; Practical cases; Combination work/precision attachments, backings and onlays.

Prosthetics

Introduction to implantology; Implant terminology; Types of implants; Prosthetic procedures; Occlusal considerations; Biomechanical considerations; Practical cases; Combination work and attachments.

DENTAL TECHNOLOGY IV (DTTH431) (Practical)

Assessment Plan

Class work	40%
Assessment	60%

Topics Covered

Prosthetics

Overdentures with attachments, Implant terminology, Types of implants, Prosthetic procedures, Occlusal considerations.

Biomechanical considerations, Practical cases, Combination work.

Cobalt Chrome

Removable partial dentures, Design of chrome cobalt partial dentures, Practical cases, Combination work, backings, onlays, laser welding.

Orthodontics

Principles of angle Class I treatment, Principles of angle Class II treatment, Principles of angle Class III treatment.

Functional jaw orthopaedics, Case discussions, Practical cases.

Crown and Bridge;

Metal-ceramic systems; Planning and design factors for large cases, Occlusion factors in ceramic restorations; The use of precision attachments and broken stress connectors in large cases; Combination cases with removable partial dentures and fixed restorations, including milling and precision attachments; CAD-CAM. Practical cases.

RESEARCH METHODS AND TECHNIQUES (RMTQ101)

Assessment Plan (See subject guide for specific details)

Concept paper	30%
Research Proposal	70%

Note that the final pass mark for this module is 50%.

Content Covered

Overview of Quantitative Research and Qualitative Research, design and methodology.

Research Proposal Process: Aim and Objectives/Research Questions; Context of the study; Problem Statement; Delimitations, Limitations, Assumptions and Hypothesis; Overview on Literature Review; Research Design and Methodology (What stimulated the study, Sampling, Data collection and Data Analysis); References and Plagiarism; Ethical Considerations; and Endnote; Academic Development/Writing: Research Proposal.

BHSc: DENTAL TECHNOLOGY (BHDNT I)

ORAL ANATOMY: MOD I and II (INOA111 & INOA121)

This subject is run as a continuous assessment and therefore:-

The pass mark for this subject is 50%.

There will be no formal examination at year end.

Assessment Plan per Module:

Theory Tests	-	70%
Theory Assignment	-	30%

Note for Each Module

2. **MOD I** is a prerequisite to **MOD II**.
3. Please refer to your discipline-specific study guide for further details.

Subject Content Covered

MOD I: Anatomical Nomenclature and its application to Dental Technology; Structures and Functions of Anatomical Features of the Oral Region; Structures and Functions of Anatomical Features of the jaws; Structural and Functional anatomy of the TMJ; Muscles of Mastication; and Border Movements.

MOD II: Introduction to Muscles; Muscles of Facial expression; Principles of Mastication; and Anatomy and Basic Physiology of the Major Salivary Glands.

TOOTH MORPHOLOGY: MOD I and MOD II (ITMO111 & ITMO121)

This subject is run as a continuous assessment and therefore:-

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Assessment Plan per Module

Tests	-	70%
Assignments	-	30%

1. **Note for MOD I** is a prerequisite to **MOD II**. Please refer to your discipline-specific study guide for further details.

Subject Content Covered

MOD I: Overview of maxillary and mandibular permanent dentition; tooth numbering systems; Terminologies used to describe parts of a tooth and its surfaces; Description of Permanent Anterior and Premolar Teeth in terms of General Characteristics, Functions, Dental Nomenclature, Shape, Morphology, Traits, and Drawings and Carvings of Permanent Anterior and Premolar Teeth.

MOD II: Shape and Morphology of permanent maxillary molars and its application to dental carvings and drawings; Shape and Morphology of permanent mandibular molars and its application to dental carvings and drawings; Dental Occlusion and Malocclusion; and Primary Dentition.

DENTAL SKILLS DEVELOPMENT

This subject is run as a continuous assessment and therefore:-

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Please refer to your discipline-specific study guide for further details.

Assessment Plan per Module

Tests - 70%

Assignments - 30%

Subject Content Covered: Computer and Information Literacy; Digital Technologies; Drawings; Shading in a range of light and dark tones to foreground the 3-dimensional form of objects and permanent teeth; Academic Development; Oral communication and Time Management Skills: Presenting a Dental Technology procedure/process; Time Management, Problem-Solving and Teamwork Skills in a Group Exercise; and Reflective writing.

PRINCIPLES AND PRACTICES OF DENTAL TECHNOLOGY MOD I & MOD II (PPDT111 & PPDT121)

This subject consists of a theory and practical component. Please note that there are two modules in this subject. Module I is a prerequisite to Module 2.

Both modules need to be passed in one year as they are pre-requisite modules to the subject 'Principle and practices of Dental Technology II'.

This subject is run as a continuous assessment and therefore:-

A 50% sub-minimum is to be achieved for each practical component in module I and II.

The pass mark for Principles and Practices of Dental Technology module I and module II is an average of 50% between the two linked modules.

Students are to complete the required quota of practical cases to the required standard.

Students who do not complete the quota requirement will not enter the practical test at the end of the module and will effectively fail the module, overall.

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Assessment Plan per module

Theory component: 40%

Practical component: 60%

Topics Covered

Theory

Occupational health and safety in the dental laboratory, Introduction to prosthodontic treatment, Primary models, Special trays, Trial bases and Occlusal Rims, Articulation, Complete denture set-up to the try-in stage, Processing and finishing of a complete denture, Denture repairs.

Practical

Use and care of equipment relevant to primary model fabrication, Objectives of primary impressions, Landmarks of the edentulous impression, Care and Disinfecting of impressions, Mixing of Gypsum, Casting of alginate impressions using Inverting and Non-inverting (double pour) techniques, Trimming and dimensions of primary models, Disposal of impression materials and gypsum products, Use and care of equipment relevant to special tray fabrication, Outlining the required extension of the special tray on the primary models, Constructing close-fitting special trays and those with a uniform spacer and stops, Position, shape and dimensions of special tray handles; Trimming and Polishing Special tray, Disposal of autopolymerising and light-cure materials, Secondary models for complete dentures, Objectives of the final impression, Beading, and Boxing-in of secondary impressions, Dimensions and Trimming (in Balance) of Secondary Models The construction of occlusion rims, their position and dimensions, Strengthening wax-based trial bases Articulate Dental Casts by the transfer of jaw registration to the articulator.

DENTAL MATERIALS SCIENCE I MOD I & MOD II (DMTS111 & DMTS121)

Please note that there are two modules in this subject. Module I is a prerequisite to Module 2. Both modules need to be passed in one year, as they are pre-requisite modules to the subject 'Dental Materials Science II'.

This subject is run as a continuous assessment and therefore:-

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Assessment Plan per module

Assessment = 70%

Assignments = 30%

Topics Covered

The Ideal Properties of impression materials, gypsum materials, waxes, light polymerised and auto-polymerised special trays used in various dental applications for dental laboratory application and resins for denture fabrication. Composition of impression materials, Type I and Type II gypsum products, modelling wax, interocclusal wax, carving wax and utility wax, light polymerised and auto-polymerised special trays. Manipulation of impression materials, Type I and Type II gypsum products, modelling wax, interocclusal wax, carving wax and utility wax, light polymerised and auto-polymerised special trays, poly (methyl) methacrylate denture base resins and separating media. Indications and Contra-indications of Impression materials. Irreversible hydrocolloid impression materials, Type I and Type II gypsum products and their application in the fabrication of primary models, final models, articulation and flasking procedures. Indications and Contra-indications of modelling wax, interocclusal wax, carving wax and utility wax. Indications and Contra-indications of light polymerised, auto-polymerised special, poly (methyl) methacrylate denture base resin and separating media.. Disinfectants used for irreversible hydrocolloid impression materials, poly (methyl) methacrylate denture base resin and separating media. Care, Storage and disposal of irreversible hydrocolloid impression materials, Type I and Type II gypsum products, modelling wax, interocclusal wax, carving wax and utility wax, light polymerised and auto-polymerised special trays. Care, Storage, shelf-life and disposal of poly (methyl) methacrylate denture base resin. Care, Storage, shelf-life and disposal of separating media. Classification, composition and manipulation of abrading and polishing materials properties. The application of the properties to Dental Technology.

Requirements of Dental Cast Materials. Introduction to dental gypsum. Setting of Gypsum Products. Introduction to dental impression materials. Dental resin. Requirements of polymeric denture base materials. Polymerisation. Heat-cured acrylic materials. Introduction to waxes. Basic constituents of wax. Physical properties of waxes. Dental applications of waxes. Separating media. Denture cleaners. Dental instruments. Abrasion and polishing.

PHYSICS (PSCS101)

Assessment Plan (Physics)

This is a Continuous Assessment module.

Theory Tests	70%
Practicals	30%

Topics Covered

Oscillations and Waves, Sound Waves, Temperature, Heat and Heat Transfer, Electric Charge, Electric Potential, Electric Current, Magnetism, Light: Geometric Optics, The Wave nature of Light, Optical Instruments, Nuclear Physics & Radioactivity, Effects and Uses of Radiation, Early Quantum Theory

CHEMISTRY (CHMS101)

Assessment Plan

Theory Tests	40%
Examinations	60%

Topics Covered

Matter. Chemical Equations and Stoichiometry. Solutions. Chemical Reactions. Reaction Rates and Equilibrium. Acids, Bases and Salts. Electrochemistry and Redox Theory. Applied Chemistry of Selected Topics. Organic Chemistry.

BHSc: DENTAL TECHNOLOGY : EXTENDED CURRICULUM PROGRAMME

NB: Students are to read this section in conjunction with the relevant study guide.

INTRODUCTION TO PRINCIPLES AND PRACTICES OF DENTAL TECHNOLOGY MOD I and II

This subject consists of a theory and practical component. Please note that there are two modules in this subject. Module A is a prerequisite to Module B.

Both modules need to be passed in one year as they are pre-requisite modules to the subject 'Principle and practices of Dental Technology I'.

This subject is run as a continuous assessment and therefore:-

A 50% sub-minimum is to be achieved for each practical component in module A and B.

The pass mark for Introduction to Principles and Practices of Dental Technology module A and

module B is an average of 50% between the two linked modules.

Students are to complete the required quota of practical cases to the required standard.

Students who do not complete the quota requirement will not enter the practical test at the end of the module and will effectively fail the module, overall.

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Assessment Plan per module

Theory component: 40%

Practical component: 60%

Topics Covered

Theory

Occupational health and safety in the dental laboratory, Introduction to prosthodontic treatment, Primary models, Special trays, Trial bases and Occlusal Rims.

Practical

Use and care of equipment relevant to primary model fabrication, Objectives of primary impressions, Landmarks of the edentulous impression, Care and Disinfecting of impressions, Mixing of Gypsum, Casting of alginate impressions using Inverting and Non-inverting (double pour) techniques, Trimming and dimensions of primary models, Disposal of impression materials and gypsum products, Use and care of equipment relevant to special tray fabrication, Outlining the required extension of the special tray on the primary models, Constructing close-fitting special trays and those with a uniform spacer and stops, Position, shape and dimensions of special tray handles; Trimming and Polishing Special tray, Disposal of autopolymerising and light-cure materials, Secondary models for complete dentures, Objectives of the final impression, Beading, and Boxing-in of secondary impressions, Dimensions and Trimming (in Balance) of Secondary ModelsThe construction of occlusion rims, their position and dimensions,

DENTAL ART AND CARVING

This subject consists of a theory and practical component. Please note that it is a single module in the second semester of year I ECP.

This subject is run as a continuous assessment and therefore:-

A 50% sub-minimum is to be achieved .

The pass mark for dental art and carvings is 50%.

Students are to complete the required quota of practical cases to the required standard.

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Assessment Plan per module

Theory component: 40%

Practical component: 60%

Topics Covered

The content will include Line drawing, Analytical Drawing: 1-point perspective / 2-point perspective
Analytical Drawing: simple cube 2-point with measurement , Analytical Drawing and Shading.
Observation and Shading: Copy from drawing of geometric shapes, Preparing shapes of drawing **and**
Observation and shading will be included. Introduction to composition in drawing, Observation and
shading: Organic shapes, Analytical Drawing: Tooth line drawings with grids, Analytical Drawing:
Drawing and shading, Observation and Shading: drawing from life , Observation and Shading:
Drawing from life tooth model **and** Drawing from memory

DENTAL SKILLS DEVELOPMENT

This subject is run as a continuous assessment and therefore:-

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Please refer to your discipline-specific study guide for further details.

Assessment Plan per Module

Tests	- 70%
Assignments	- 30%

Subject Content Covered: Computer and Information Literacy; Digital Technologies;
Drawings; Shading in a range of light and dark tones to foreground the 3-dimensional form of
objects and permanent teeth; Academic Development; Oral communication and Time
Management Skills: Presenting a Dental Technology procedure/process; Time Management,
Problem-Solving and Teamwork Skills in a Group Exercise; and Reflective writing.

INTRODUCTION TO DENTAL LABORATORY PRACTICE (MOD I and II)

This subject consists of a theory and practical component. Please note that there are two
modules in this subject. Module I is a prerequisite to Module II.

Both modules need to be passed in one year as they are pre-requisite modules to the subject
'Principle and practices of Dental Technology II'.

This subject is run as a continuous assessment and therefore:-

A 50% sub-minimum is to be achieved for each practical component in module A and B.

The pass mark for Introduction to Dental laboratory practice module A and module B is an average
of 50% between the two linked modules.

Students are to complete the required quota of practical cases to the required standard.

Students who do not complete the quota requirement will not enter the practical test at the end of
the module and will effectively fail the module, overall.

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Assessment Plan per module

Theory component: 40%

Practical component: 60%

Topics Covered

The following content makes up this module. Fixed Prosthodontics, Removable prosthodontics, Orthodontics, and Metal) Prosthodontics, Various Crown & Bridge die indexing systems, including Pin, Base & Ditch working models. Aesthetics in relation to artificial tooth selection in acrylic dentures, Artificial Tooth Selection; Aesthetics in Acrylic Denture Set-ups; and the General Principles of Balanced Occlusion. The fabrication of removable single and complete denture prostheses and the criteria for the construction of wire components.

PRINCIPLES AND PRACTICES OF DENTAL TECHNOLOGY I MODULES I and II (PPDT111 & PPDT121)

This subject consists of a theory and practical component. Please note that there are two modules in this subject. Module I is a prerequisite to Module 2.

Both modules need to be passed in one year as they are pre-requisite modules to the subject 'Principle and practices of Dental Technology II'.

This subject is run as a continuous assessment and therefore:-

A 50% sub-minimum is to be achieved for each practical component in module I and II.

The pass mark for Principles and Practices of Dental Technology module I and module II is an average of 50% between the two linked modules.

Students are to complete the required quota of practical cases to the required standard.

Students who do not complete the quota requirement will not enter the practical test at the end of the module and will effectively fail the module, overall.

The pass mark for this subject is 50%.

There will be no formal examination at year-end.

Assessment Plan per module

Theory component: 40%

Practical component: 60%

Topics Covered

Theory

Occupational health and safety in the dental laboratory, Introduction to prosthodontic treatment, Primary models, Special trays, Trial bases and Occlusal Rims, Articulation, Complete denture set-up to the try-in stage, Processing and finishing of a complete denture, Denture repairs.

Practical

Use and care of equipment relevant to primary model fabrication, Objectives of primary impressions, Landmarks of the edentulous impression, Care and Disinfecting of impressions, Mixing of Gypsum, Casting of alginate impressions using Inverting and Non-inverting (double pour)

techniques, Trimming and dimensions of primary models, Disposal of impression materials and gypsum products, Use and care of equipment relevant to special tray fabrication, Outlining the required extension of the special tray on the primary models, Constructing close-fitting special trays and those with a uniform spacer and stops, Position, shape and dimensions of special tray handles; Trimming and Polishing Special tray, Disposal of autopolymerising and light-cure materials, Secondary models for complete dentures, Objectives of the final impression, Beading, and Boxing-in of secondary impressions, Dimensions and Trimming (in Balance) of Secondary ModelsThe construction of occlusion rims, their position and dimensions, Strengthening wax-based trial basesArticulate Dental Casts by the transfer of jaw registration to the articulator.

HIGHER CERTIFICATE IN DENTAL ASSISTING

NB: Students are to read this section in conjunction with the relevant study guide

SEMESTER I

DENTAL ASSISTING THEORY IA (DATA101)

Assessment Plan

Theory Tests	40%
Examination	60%

Topics Covered

Infection Control; Pain Control, Dental Materials, Radiography

DENTAL PRACTICE MANAGEMENT (DNPM101)

Assessment Plan

Theory Tests	40%
Examination	60%

Topics Covered

Patient Management, Practice Management, Ethics and Jurisprudence Office Technology and Management - (Theory and Practical)

ORAL ANATOMY AND PATHOLOGY IA (OAPA101)

Assessment Plan

Theory Tests	40%
Examination	60%

Topics Covered

Microbiology, Oral Anatomy and Physiology

DENTAL ASSISTING PRACTICAL IA (DAPA101)

Assessment Plan

Clinical Exams 50%

Practical Tests 50%

Topics Covered

Surgery Orientation; Dental Equipment and Dental Instruments; Four Handed Dentistry; Clinical Procedures (including specialties); Clinical Asepsis; Radiographic Procedures

CORNERSTONE 101 (CSTN101)

The Cornerstone module is compulsory for all undergraduate students. The purpose of this module is to induct students into the community of higher education, with values and practices that promote self-awareness, social justice and environmental sustainability

Assessment Plan

TBC

SEMESTER 2

DENTAL ASSISTING THEORY IB (DATB101)

Assessment Plan

Theory Tests 40%

Examination 60%

Topics Covered

Nutrition, Oral Hygiene, Conservative Dentistry, Dental Specialities

ORAL ANATOMY AND PATHOLOGY IB (OAPB101)

Assessment Plan

Theory Tests 40%

Examination 60%

Topics Covered

Oral Pathology %

Medical Emergencies %

Cariology %

DENTAL ASSISTING PRACTICAL IB (DAPB101)

Assessment Plan

Clinical Exams 50%

Practical Tests 50%

Topics Covered

Surgery Orientation; Dental Equipment and Dental Instruments; Four Handed Dentistry; Clinical Procedures (including specialties); Clinical Asepsis; Radiographic Procedures

DENTAL ASSISTING CLINICAL PRACTICE (DACP101)

Assessment Plan

Work Integrated Learning hours	30%
Clinical Feedback	20%
Practical Tests	50%

Topics Covered

Surgery Orientation; Dental Equipment and Dental Instruments; Infection Control Practice; Ra- diographic Practice.

Work Integrated Learning is a compulsory component of this module and the student is required to attend an accredited dental practice to obtain (200) as well as meeting certain outcomes as specified in the Study guide for this module.

PHARMACOLOGY FOR DENTAL ASSISTING (PHDA101)

Theory Tests	40%
Examination	60%

E & OE