



NATIONAL BOARD FOR TECHNICAL EDUCATION

NATIONAL DIPLOMA (ND)

DENTAL THERAPY

CURRICULUM AND COURSE SPECIFICATIONS

PLOT B, BIDA ROAD, P.M.B.2239, KADUNA –NIGERIA

OCTOBER, 2024

FOREWARD

With a growing demand for oral health services, the need for well-trained dental technicians has become increasingly apparent.

The National Diploma in Dental Therapy curriculum is designed to produce skilled dental technicians who can contribute significantly to oral healthcare in Nigeria.

This curriculum, developed to meet the evolving needs of the dental profession, provides a solid foundation in dental and clinical practice. It is designed to equip students with the necessary knowledge and skills to provide quality dental care,

I would like to express my sincere gratitude to Dental Therapist Registration Board of Nigeria (DThRBN) who sponsored and contributed to the review of this non-terminal curriculum. Their expertise and dedication have been instrumental in shaping this curriculum

I hope that this curriculum will be implemented effectively to produce competent dental technicians who can make a positive impact on oral health in Nigeria.

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EXECUTIVE SECRETARY,
NBTE Kaduna.

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GENERAL INFORMATION

1.0 TITLE OF THE PROGRAMME: The title of the programme is **National Diploma Dental Therapy**

2.0 GOAL AND OBJECTIVES OF THE PROGRAMME

2.1 Goal: The National Diploma (ND) programme in Dental Therapy is designed to produce technicians who will assist in various dental health activities under the supervision of a dental therapist/surgeon.

2.2 Objectives: At the end of the programme, the student should be able to:

1. Examine tooth morphology and tooth carving.
2. Examine organization, structure and functions of the human body
3. Recognize the evolution of Dental Therapy
4. Examine Dental Therapy instruments
5. Recognize functions of the oral tissues
6. Provide the care and maintenance of equipment and instruments.
7. Apply pathological progress of oral diseases.
8. Assist in carrying out cleaning of the mouth
9. Recognize developmental process of the tooth
10. Assist in pre-clinical practical skills in periodontal debridement (scaling and polishing)
11. Assist in giving good oral health instruction
12. Observe the simulation in phantom head studio using dental therapy hand instruments
13. Observe the procedures for Dental Radiography
14. Observe how to handle emergency cases
15. Recognize anatomy of the head and neck
16. Observe process of Sterilization in Dental Health Care
17. Examine Dental materials
18. Observe procedures of clinical practice

3.0 ENTRY REQUIREMENTS:

The general entry requirements for the ND in Dental Therapy are:

- a. At least a minimum score in the Unified Tertiary Matriculation Examination (UTME).
- b. Candidates for the programme shall possess minimum of five (5) credits passes in NABTEB/WAEC/GCE/SSCE/NECO or its equivalents in not more than two sittings to include: English Language, Mathematics, and any other three from Biology/Health Science, Physics and Chemistry.

4.0 STAFFING REQUIREMENT

4.1 Headship of the Department:

The HOD should not be lower than a Senior Lecturer in rank. He should be qualified in the discipline/field of study and have post-qualification cognate experiences in industry, teaching and educational management to guarantee to the Board that the department is being efficiently and effectively run. He should possess at least a good HND /B.Sc Degree with relevant Postgraduate Degree and also be a registered Dental Therapist with the Dental Therapists' Registration Board of Nigeria.

4.2 Core Teaching Staff:

At the point of mounting the programme, there should be a minimum of four (4) Lecturers or three (3) Lecturers and one (1) Instructor from Lecturer II and above with B.Sc. /BDTH/ HND in Dental Therapy, BDS with additional Higher Degrees in the following areas:

- Dental Therapy
- Public Health
- Social Work
- Health Education

4.3 Technical Staff:

These are technically qualified staff not involved in direct lecturing/instructing, but who provide vital and indispensable services in all facilities used in the implementation of the programme. They possess minimum of Diploma in Dental Surgery Technicians and HND in Dental Therapy

5.0 CAREER AND ACADEMIC PROSPECTS

5.1 Academic Progression

Holders of the ND are eligible for admission into HND. The programme is non-terminal but Students graduate into HND.

6.0 DURATION

The duration of the programme is two academic sessions consisting of four semesters of 17 weeks each. (15 weeks academic activities and 2 weeks for Registration & Examinations).

7.0 CURRICULUM

7.1 The curriculum of the ND programme consists of four main components. These are:

- i. General Studies/Education
- ii. Foundation Courses
- iii. Core Courses
- iv. Students' Industrial Work Experience Scheme (SIWES)

7.2 The General Education component shall account for not more than 15% of total contact hours for the programme.

7.3 Foundation Courses: include courses in English Language, Mathematics, and three other subjects, from the sciences humanities or mixtures of both. The number of hours will vary with the programme and may account for about 10-15% of the total contact hours.

7.4 Professional Courses: are courses, which give the student the theory and practical skills needed to practice in his/her field of specialization at the technical level. These may account for between 60-70% of the total contact hours of the programme.

7.5 Students' Industrial Work Experience Scheme (SIWES) shall take place during the long vacation following the end of the second semester of the first year. See details on SIWES.

8.0 CURRICULUM STRUCTURE

The structure of the ND programme consists of four semesters of Classroom, Laboratory, Field Trips and Workshop activities in the college and Students' Industrial Work Experience Scheme at the end of second semester of the first year.

Each semester shall be of 17 weeks duration made up as follows: 15 contact weeks of teaching, lecture recitation and practical exercises, etc and 2 weeks for tests, quizzes, examinations and registration.

9.0 ACCREDITATION

The National Board for Technical Education shall accredit the programme before the Diplomats can be awarded the National Diploma certificates. Details about the process of accrediting the programme for the award of the National Diploma are available from the office of the Executive Secretary, National Board for Technical Education, Plot “B”, Bida Road, P.M.B. 2239, Kaduna, Nigeria.

10.0 CONDITION FOR PROGRESSION INTO HIGHER NATIONAL DIPLOMA

10.1 The programme is non-terminal, Students graduate into HND:

- a. Satisfactory performance in all prescribed course work which may include class work, tests, quizzes,
- b. Clinical experience
- c. SIWES experience
- d. Satisfactory performance at all semester examinations.
- e. Satisfactory completion of final year project work.
- f. Normally, for all courses including final year project work, continuous assessment contributes 30% while semester examinations and project reports are weighted 70% to make a total of 100%.

10.2 Classification of Diploma

National Diploma (ND) shall be awarded in four classes as follows:

Distinction	-	CGPA of 3.50 and above
Upper Credit	-	CGPA of 3.00 – 3.49
Lower Credit	-	CGPA of 2.50 – 2.99
Pass	-	CGPA of 2.00 – 2.49

10.3 Grading of Courses:

Courses shall be graded as follows:

MARKED RANGE	LETTER GRADE	WEIGHTING
75% and above	A	4.00
70% – 74%	AB	3.50
65% – 69%	B	3.25
60% – 64%	BC	3.00
55% – 59%	C	2.75
50% – 54%	CD	2.50
45% – 49%	D	2.25
40% – 44%	E	2.00
Below 40%	F	0.0

11.0 GUIDANCE NOTES FOR TEACHERS

- 11.1** The new curriculum is drawn in unit courses. This is in keeping with the provisions of the National Policy on Education which stress the need to introduce the semester credit units which will enable a student who so wishes to transfer the units already completed in an institution of similar standard from which he/she is transferring.
- 11.2** In designing the units, the principle of the modular system by product has been adopted, and each of the professional modules, when completed provides the student with Officers/technician operative skills, which can be used for employment purposes or self-reliance.
- 11.3** As the success of the credit unit system depends on the articulation of the programme between the institutions and industry, the curriculum content has been written in behavioral objectives, so that it is clear to all the expected performance of the student

who successfully completed some of the courses or the diplomates of the programme. This is slight departure in the presentation of the performance-based curriculum which requires the conditions under which the performance is expected to be carried out and the criteria for the acceptable levels of performance. It is a deliberate attempt to further involve the staff of the department teaching the programme to write their own curriculum stating the conditions existing in their institution under which performance can take place and to follow that with the criteria for determining an acceptance level of performance.

The Academic Board of the institution may vet departmental submission on the final curriculum. Our aim is to continue to see to it that a solid internal evaluation system exists in each institution for ensuring minimum standard and quality of education in the programmes offered throughout the TVET Institution system.

11.4 The teaching of the theory and practical work should, as much as possible, be integrated. Practical exercises especially those in professional courses and laboratory work should not be taught in isolation from the theory. For each course, there should be at least balance of theory to practical in the ratio of 70:30.

11.5 ASSESSMENT:

	Classwork /practical &Laboratory Works	Total
Examination		70
CA		30
Total		100

12.0 PRACTICAL LOGBOOK

A personal Logbook to be kept by each student shall contain all day-to-day, weekly summary and semester summary of all the practical activities from day one to the end of the programme. This is to be checked, marked, endorsed and recorded by the lecturers/technologists concerned at the end of every week.

13.0 FINAL YEAR PROJECT

Final year students in this programme are expected to carry out a project work. This could be on individual basis or group work of not more than three students per group, but reporting must be undertaken individually. The project should, as much as possible be related to the programme. Project reports should be well presented and should be properly supervised. The departments should make their own arrangement of schedules for project work.

GUIDELINES ON SIWES PROGRAMME

For the smooth operation of the SIWES the following guidelines shall apply.

14.1 Grading of SIWES

To ensure uniformity of grading scales, the institution should ensure that the uniform grading of students work, which has been agreed to by all TVET Institutions is adopted.

14.2 The Institution Based Supervisor

The institution-based supervisor should initial the log book during each visit. This will enable him to check and determine to what extent the objectives of the scheme are being met and to assist students having any problems regarding the specific assignments given to them by their industry-based supervisor.

14.3 Frequency of Visit

Institution should ensure that students placed on attachment are visited within one month of their placement. Other visits shall be arranged so that:

- i. There is another visit six weeks after the first visit; and
- ii. A final visit in the last month of the attachment.

14.4 Responsibility for Placement of Students

- a. Institution offering the ND programme shall arrange to place the students in industry. By the end of second semester of the first academic session, six copies of the master list showing where each student has been placed shall be submitted to the Executive Secretary, NBTE, who shall, in turn authenticate the list and forward it to the Industrial Training Fund, Jos.

- b. The Placement Officer should discuss and agree with industry on the following:
 - i. A task inventory of what the student is expected to experience during the period of attachment. It may be wise to adopt the one already approved for each field by the industry-based supervisor.
 - ii. The evaluation of the student by the industry-based supervisor and the institution-based supervisor.
 - iii. The final grading of the student during the period of attachment should be weighted more on the evaluation by industry-based supervisor.

14.5 Evaluation of Students during the SIWES

In the evaluation of the student, cognizance should be taken of the following items:

- i. Punctuality
- ii. Attendance
- iii. General Attitude to Work
- iv. Respect for authority
- v. Interest in the field/technical area
- vi. Technical competence as a potential technician in his field.
- vii. Team work

14.6 Stipend for Students in SIWES

The rate of stipend payable shall be determined from time to time by the Federal Government after due consultation with the Federal Ministry of Education, the Industrial Training Fund and the National Board for Technical Education (NBTE).

14.7 SIWES as a Component of the Curriculum

The completion of SIWES is important in the final determination of whether the student is successful in the programme or not. Failure in SIWES is an indication that the student has not shown sufficient interest in the field or has no potential to become a skilled technician in the field. The SIWES should be graded on a '*Fail or Pass*' basis. Where a student has satisfied all other requirements but failed SIWES he may only be allowed to repeat another four months SIWES at his/her own expense.

CURRICULUM TABLE

YEAR I SEMESTER I

S/N	COURSE CODE	COURSE TITLE	L	P	CU	CH
1	STB 112	Morphology and Physiology of Living Things	2	-	2	2
2	BCH 111	General Chemistry	2	-	2	2
3	BPH 111	Mechanics and Properties of Matter	2	-	2	2
4	STA 111	Introduction to Statistics	2	-	2	2
5	CHM 111	Primary Health Care	2	-	2	2
6	PCT 111	Introduction to Pharmacology	2	1	3	3
7	GNS 101	Use of English I	2	-	2	2
8	GNS 111	Citizenship Education I	2	-	2	2
9	MSQ	Mandatory Skills Qualification	-	-	-	2
10	COM 111	Introduction to Computing	2	1	3	3
11	DTH 111	Tooth Morphology and Tooth Carving I	1	1	2	2
12	DTH 112	Human Anatomy and Physiology I	1	1	2	2
13	DTH 113	Foundation of Dental Therapy	2	-	2	2
Total			22	4	26	28

YEAR I SEMESTER II

S/N	COURSE CODE	COURSE TITLE	T	P	CU	CH
1	GLT 111	General Laboratory Techniques	1	1	2	2
2	PTD 111	Technical Drawing	1	2	3	3
3	ENT 126	Introduction to Entrepreneurship I	2	1	3	3
4	GNS 121	Citizenship Education II	2	-	2	2
5	MSQ	Mandatory Skills Qualification	-	-	-	2
6	DTH 121	Dental Therapy Instrumentation	1	1	2	2
7	DTH 122	Oral Physiology	1	1	2	2
8	DTH 123	Care and Maintenance of Dental Equipment	1	1	2	2
9	DTH 124	General Pathology I	2	-	2	2
10	DTH 125	Human Anatomy and Physiology II	1	1	2	2
11	DTH 126	Tooth Morphology and Tooth Carving II	1	1	2	2
12	DTH 127	Oral Hygiene	2	1	3	3
13		SIWES	-	-	-	-
Total			16	11	27	29

YEAR II SEMESTER I

S/N	COURSE CODE	COURSE TITLE	L	P	CH	CU
1	GNS 213	Medical Sociology	2	-	2	2
2	GNS 202	Use of English II	2	-	2	2
3	ENT 216	Introduction to Entrepreneurship II	-	-	2	2
4	DTH 211	Oral Anatomy	1	1	2	2
5	DTH 212	Phantom Head	1	2	3	3
6	DTH 213	Oral Health Education	1	1	2	2
7	DTH 214	General Pathology II	2	-	2	2
8	DTH 215	Dental Instrumentation I	1	1	2	2
9	DTH 216	Dental Radiography I	1	1	2	2
10	DTH 217	Research Methodology in Dental Therapy	2	-	2	2
Total			13	6	21	21

YEAR II SEMESTER II

S/N	COURSE CODE	COURSE TITLE	L	P	CH	CU
1	STB 211	Introductory to Microbiology	1	2	3	3
2	NUD 122	Human Nutrition and Dietetics	2	-	2	2
3	DTH 221	First Aid and Dental Emergencies	1	1	2	2
4	DTH 222	Anatomy of Head and Neck	1	1	2	2
5	DTH 223	Principles of Sterilization	1	1	2	2
6	DTH 224	Dental Materials	2	1	3	3
7	DTH 225	Introduction to Clinical Practice	2	-	2	2
8	DTH 226	Project	-	-	2	2
TOTAL			10	6	18	18

NOTE: Borrowed/Foundation/General Courses in *italics* above are to be obtained from the respective programme curricula.

KEY:

L= Lecture hours, T= Tutorial hours, P= Practical hour

YEAR I

SEMESTER I

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Tooth Morphology and Tooth Carving I	COURSE CODE: DTH 111	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students to the knowledge of tooth morphology and skills of tooth carving.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Know terminologies used in Tooth Morphology 2.0 Know the difference between Deciduous and Permanent Human Dentition 3.0 Know the structure of each Tooth in the Human Dentition 4.0 Know Occlusion and Articulation		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Tooth Morphology and Tooth Carving I			COURSE CODE: DTH 111	CREDIT UNIT: 2		
			CONTACT HOURS: 2	THEORETICAL: 1		
YEAR: I SEMESTER: I			PRE-REQUISITE:	PRACTICAL: 1		
GOAL: This course is designed to provide students to the knowledge of Tooth Morphology and skills of Tooth Carving.						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0: Know terminologies used in Tooth Morphology						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define tooth morphology 1.2 List dental terminologies e.g: <ul style="list-style-type: none"> • Mesial • Distal • Occlusal • Crown • Root • Pits/Fissures • Cusps • Ridges • Exfoliation • Occlusion • Articulation etc. 	Explain tooth morphology Explain dental terminologies e.g. <ul style="list-style-type: none"> • Mesial • Distal • Occlusal • Crown • Root • Pits/Fissures • Cusps • Ridges • Exfoliation • Occlusion • Articulation 	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Identify the surfaces of the teeth Draw the structure of a tooth	Guide students to: Identify the surfaces of the teeth Draw the structure of a tooth	Dental Model

	1.3 Explain the dental terminologies listed in 1.2 above	etc. Explain the dental terminologies listed in 1.2 above				
General Objective 2.0: Know the difference between Deciduous and Permanent Human Dentition						
4-6	2.1 Define Dentition 2.2 Describe the types of Human Dentition 2.3 Describe the difference between the two types of Dentitions in terms of: <ul style="list-style-type: none"> • Numbers • Size • Shape • Colour • Structures 	Explain Dentition Explain types of Human Dentition Explain the difference between the two types of Dentitions in terms of : <ul style="list-style-type: none"> • Numbers • Size • Shape • Colour • Structures 	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Identify the types of Human Dentition Demonstrate the difference between the two types of Dentitions in terms of: <ul style="list-style-type: none"> • Numbers • Size • Shape • Colour • Structures 	Guide student to: Identify the types of Human Dentition Demonstrate the difference between the two types of dentitions in terms of: <ul style="list-style-type: none"> • Numbers • Size • Shape • Colour • Structures 	Dental model
General Objective 3.0: Know the structure of each Tooth In the Human Dentition						
7-10	3.1 Define deciduous and permanent human dentitions 3.2 Describe each tooth in deciduous dentition 3.3 Describe tooth in permanent dentition	Explain deciduous and permanent human dentitions. Explain each tooth in deciduous dentition. Explain tooth in permanent dentition	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Identify each tooth in the deciduous and permanent human dentitions Identify the functions of each tooth.	Guide students to: Identify each tooth in the deciduous and permanent human dentitions Identify the functions of each tooth.	Dental model Mixed dentition

	3.4 Explain the functions of each tooth	Explain the functions of each tooth		Draw and label each tooth	Draw and label each tooth	
General Objective 4.0: Know Occlusion and Articulation						
11-15	4.1 Define Occlusion	Explain Occlusion	Textbooks Whiteboard		Guide students to:	Dental model Articulator
	4.2 Describe the types of occlusions	Explain types of occlusions	Marker Multimedia Projector	Demonstrate the types of occlusions	Demonstrate the types of occlusions	
	4.3 Describe the importance of articulation in occlusion.	Explain the importance of articulation in occlusion.	Computer Internet Charts	Demonstrate types of malocclusions	Demonstrate types of malocclusions	

EVALUATION:

C.A: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Human Anatomy and Physiology I	COURSE CODE: DTH 112	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide the student with knowledge of the organization, structure and functions of the system of the human body		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Know the Structure of the Human Body 2.0 Know the Human Cell Structure 3.0 Understand Human Tissues 4.0 Know the systems of the body 5.0 Understand the body fluids electrolytes and acid-base balance 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Human Anatomy and Physiology I		COURSE CODE: DTH 112		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: I SEMESTER: I		PRE-REQUISITE:		PRACTICAL: 1		
GOAL: This course is designed to provide the student with knowledge of the organization, structure and functions of the system of the human body						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0: Know the Structure of the Human Body						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Explain the following terms associated with anatomical descriptions: <ul style="list-style-type: none"> • Anterior • Posterior • Median • Lateral • Superior • Interior • Plantar • Palmar • Proximal • Distal • Internal • External prone 	Explain the following terms associated with anatomical descriptions: <ul style="list-style-type: none"> • Anterior • Posterior • Median • Lateral • Superior • Interior • Plantar • Palmar • Proximal • Distal • Internal • External prone 	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Identify the external parts of the human body. Identify the human body curvatures Demonstrate movements in listed in 1.2	Guide students to: Identify the external parts of the human body. Identify the human body curvatures Demonstrate movements in listed in 1.2	Human Skeleton Anatomical Models

	<ul style="list-style-type: none"> • Supine • Sagittal • Coronal <p>1.2 Explain the terms associated with body movement:</p> <ul style="list-style-type: none"> • Extension • Flexion • Abduction • Adduction • Pronation • Supination • Protrusion • Intrusion • Rotation • Rotation circumduction • Protraction • Retraction <p>1.3 Describe the external parts of the human body</p> <p>1.4 Describe the human body curvatures.</p>	<ul style="list-style-type: none"> • Supine • Sagittal • Coronal <p>Explain the terms associated with body movement:</p> <ul style="list-style-type: none"> •Extension •Flexion •Abduction •Adduction •Pronation •Supination •Protrusion •Intrusion • Rotation circumduction •Protraction •Retraction <p>Explain the external parts of the human body</p> <p>Explain the human body curvatures</p>				
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General Objective 2.0: Know the Human Cell Structure						
5-8	<p>2.1 Describe the human cell</p> <p>2.2 Describe the different components of the human cell</p> <p>2.3 Explain the functions of the components of the cell in 2.2 above</p>	<p>Describe the human cell</p> <p>Explain the different components of the human cell</p> <p>Explain the functions of the components of the cell in 2.3 above</p>	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Charts</p>	<p>Identify the components of human cell</p> <p>Draw a well labelled diagram of the human cell and its components (constituents)</p> <p>Identify a typical human cell under the microscope.</p>	<p>Guide students to:</p> <p>Identify the components of human cell</p> <p>Draw a well labelled diagram of the human cell and its components (constituents)</p> <p>Identify a typical human cell under the microscope.</p>	<p>Microscope</p> <p>Posters</p> <p>Anatomical Models</p>
General Objective 3.0 Understand the human tissues						
9-11	<p>3.1 Define a tissue</p> <p>3.2 Describe the types of tissues:</p> <ul style="list-style-type: none"> • Epithelial • Connective • Nervous • Muscular <p>3.3 Explain the functions of 3.2 above</p> <p>3.4 Describe the composition of each of</p>	<p>Explain a tissue</p> <p>Explain the types of tissues:</p> <ul style="list-style-type: none"> • Epithelial • Connective • Nervous • Muscular <p>Explain the functions of 3.2 above</p> <p>Explain the composition of each</p>	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Charts</p>			

	<p>the tissues in 3.2 above</p> <p>3.5 Describe connective tissue:</p> <ul style="list-style-type: none"> • Blood • Calcified 	<p>of the tissues in 3.2 above</p> <p>Explain connective tissue:</p> <ul style="list-style-type: none"> • Blood • Calcified 				
General Objective 4.0: Know the systems of the body						
12-13	<p>4.1 Define the systems of the body</p> <p>4.2 Enumerate the systems of the body e.g:</p> <ul style="list-style-type: none"> • Skeletal • Muscular • Nervous • Digestive • Respiratory etc. <p>4.3 Describe the functions of the skeletal system</p> <p>4.4 Describe the groups of bones of the skeletal system :</p> <ul style="list-style-type: none"> • Axial • Appendicular 	<p>Explain the systems of the body</p> <p>Explain the systems of the body e.g:</p> <ul style="list-style-type: none"> • Skeletal • Muscular • Nervous • Digestive • Respiratory etc. <p>Explain the functions of the skeletal system</p> <p>Explain the groups of bones of the skeletal system:</p> <ul style="list-style-type: none"> • Axial • Appendicular 	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Charts</p>	<p>Identify the different systems of the body</p> <p>Identify groups of bones of the skeletal system</p> <p>Draw and label the bones in each group</p> <p>Identify the types of joints in the skeletal system</p> <p>Draw and label the types of joints in the skeletal system</p>	<p>Guide students to:</p> <p>Identify the different systems of the body</p> <p>Identify groups of bones of the skeletal system</p> <p>Draw and label the bones in each group</p> <p>Identify the types of joints in the skeletal system</p> <p>Draw and label the types of joints in the skeletal system</p> <p>Draw and label the</p>	<p>Posters</p> <p>Skeletal System</p> <p>Anatomical Model</p> <p>System Models</p>

<p>4.5 List joints in the skeletal system</p>	<p>Explain joints in the skeletal system</p>			<p>types of muscles</p>	
<p>4.6 List the types of muscles that make up the muscular system</p>	<p>Explain the types of muscles that make up the muscular system</p>		<p>Draw and label the types of muscles</p>	<p>Draw and label a human heart</p>	
<p>4.7 State the structural differences in the muscles in 4.6 above</p>	<p>Explain the structural differences in the muscles in 4.6 above</p>		<p>Draw and label a human heart</p>		
<p>4.8 Describe the skeletal muscles</p>	<p>Explain the skeletal muscles</p>				
<p>4.9 State the functions of the different types of muscles in 4.6 above</p>	<p>Explain the functions of the different types of muscles in 4.6 above</p>				
<p>4.10 Explain the following group of muscles:</p> <ul style="list-style-type: none"> • Muscles of facial expression • Muscles of mastication • Muscles that move the head • Muscles that move the chest 	<p>Explain the following group of muscles:</p> <ul style="list-style-type: none"> • Muscles of facial expression • Muscles of mastication • Muscles that move the head • Muscles that 				

	<ul style="list-style-type: none"> • Muscles that move the arms • Muscles that move the limbs etc. 	<ul style="list-style-type: none"> • Muscles that move the chest • Muscles that move the arms • Muscles that move the limbs etc. 				
	4.11 List the composition of the cardiovascular System	Explain the composition of the cardiovascular System				
	4.12 Describe the functions of the heart	Explain the functions of the heart				
	4.13 Explain blood circulation	Explain blood circulation				
General Objective 5.0: Understand the body fluids electrolytes and acid-base balance						
13-15	5.1 Define homeostasis	Explain homeostasis	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts			
	5.2 Explain the maintenance of the internal environment	Explain the maintenance of the internal environment				
	5.3 Explain body fluid	Explain body fluid				
	5.4 State the locations of body fluid	Explain the locations of body fluid				
	5.5 Define the following: <ul style="list-style-type: none"> • Acid • Base 	Explain the following: <ul style="list-style-type: none"> • Acid 				

	<ul style="list-style-type: none"> • Electrolytes • Acid-base balance 	<ul style="list-style-type: none"> • Base • Electrolytes • Acid-base balance 				
	5.6 List examples of each of 5.3 above	Explain examples of each of 5.3 above				
	5.7 Describe the different composition of body fluids	Explain the different composition of body fluids				
	5.8 List the electrolyte composition of body fluids	Explain the electrolyte composition of body fluids				
	5.9 Explain the functions of each of 5.3 and 5.4 above	Explain the functions of each of 5.3 and 5.4 above				
	5.10 Explain the hormonal control of body fluids and electrolyte	Explain the hormonal control of body fluids and electrolyte.				

EVALAUTION: C.A: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Foundation of Dental Therapy	COURSE CODE: DTH 113	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 2
YEAR: I SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 0
GOAL: This course is designed to provide the students with Fundamental knowledge on the evolution of Dental Therapy		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <ol style="list-style-type: none"> 1.0 Understand the Foundation of Dentistry and Dental Therapy Professions 2.0 Understand Philosophical basis of Dental Therapy Profession 3.0 Understand the History of Dental Therapy Profession in Nigeria 4.0 Understand the scope of Dental Therapy Profession 5.0 Appreciate the roles of the Regulatory Body 6.0 Understand the Ethics of Dental Therapy Profession at the Primary, Secondary and Tertiary Health Care Facilities 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Foundation of Dental Therapy			COURSE CODE: DTH 113	CREDIT UNIT: 2		
			CONTACT HOURS: 2	THEORETICAL: 2		
YEAR: I SEMESTER: I			PRE-REQUISITE:	PRACTICAL: 0		
GOAL: This course is designed to provide the students with Fundamental knowledge on the evolution of Dental Therapy						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives: 1.0 Understand the Foundation of Dentistry and Dental Therapy Professions						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define Dentistry	Explain Dentistry	Textbooks Whiteboard			
	1.2 Define Dental Therapy	Explain Dental Therapy	Marker Multimedia			
	1.3 Explain the roles of Dental team in Nigeria	Explain the roles of Dental team in Nigeria	Projector Computer Internet			
	1.4 Explain the roles of Dental Therapy in Dental practice	Explain the roles of Dental Therapy in Dental practice	Charts			
	1.5 Discuss Global View of Dental Therapy Practice	Explain Global View of Dental Therapy Practice				

General Objective 2.0: Understand Philosophical Basis of dental therapy profession						
5-6	2.1 Explain the holistic approach to oral health within the context of general health	Explain the holistic approach to oral health within the context of general health	Textbooks Whiteboard Marker Projector Computer			
	2.2 Explain preventive care as a core tenet of dental therapy practice	Explain preventive care as a core tenet of dental therapy practice	Internet Charts			
	2.3 Explain the role of dental therapy in undeserved community	Explain the role of dental therapy in undeserved community				
	2.4 Explain patient empowerment through oral health education	Explain patient empowerment through oral health education				
	2.5 Describe research and evidence-based guidelines in dental therapy	Explain research and evidence-based guidelines in dental therapy				
General Objective 3.0: Understand the history of dental therapy profession in Nigeria						
7-8	3.1 Explain the history of dental therapy in Nigeria	Explain the history of dental therapy in Nigeria	Textbooks Whiteboard Marker Multimedia Projector Computer			

	3.2 Explain the status of dental therapy practice in Nigeria	Explain the status of dental therapy practice in Nigeria	Internet Charts			
	3.3 Explain the future directions of dental therapy practice in Nigeria	Explain the future directions of dental therapy practice in Nigeria				
General Objective 4.0: Understand the scope of dental therapy profession						
9-10	4.1 Explain the following roles of dental therapist: <ul style="list-style-type: none"> • Plaque control and dietary counselling: involving scaling and polishing • Routing planning and gingivectomy • Application of materials to the teeth such as fluoride and fissure sealant • Taking dental radiograph 	Explain the following roles of dental therapist: <ul style="list-style-type: none"> • Plaque control and dietary counselling: involving scaling and polishing • Routing planning and gingivectomy • Application of materials to the teeth such as fluoride and fissure sealant 	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts			

	<ul style="list-style-type: none"> • Providing dental health education to individuals as well as a community • Procedure of restoration of deciduous teeth • Procedure of extraction of deciduous teeth • Local anesthesia especially infiltration of the upper teeth • Placement of performed crowns and deciduous teeth can also be performed • Placement of temporary dressing on cavities • Taking impression of teeth • Educating patients on how 	<ul style="list-style-type: none"> • Taking dental radiograph • Providing dental health education to individuals as well as a community • Procedure of restoration of deciduous teeth • Procedure of extraction of deciduous teeth • Local anesthesia especially infiltration of the upper teeth • Placement of performed crowns and deciduous teeth can also be performed • Placement of temporary 				
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	<p>to maintain good oral health</p> <ul style="list-style-type: none"> • Treatment of physically challenge, medically compromised patient and patients with learning disabilities • Carrying out wide range of clinical procedures which are preventive and therapeutic • Their role as a lecturer/ researcher 	<p>dressing on cavities</p> <ul style="list-style-type: none"> • Taking impression of teeth • Educating patients on how to maintain good oral health • Treatment of physically challenge, medically compromised patient and patients with learning disabilities • Carrying out wide range of clinical procedures which are preventive and therapeutic • Their role as a lecturer/ researcher 				
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General Objective 5.0: Appreciate the roles of the Regulatory Body						
11-12	5.1 Explain the history of Dental Therapists Registration Board of Nigeria (DThRBN)	Explain the history of Dental Therapists Registration Board of Nigeria (DThRBN)	Textbooks Whiteboard Marker Multimedia			
	5.2 Explain the role of regulatory body Dental Therapists Registration Board of Nigeria (DThRBN)	Explain the role of regulatory body Dental Therapists Registration Board of Nigeria (DThRBN)	Projector Computer Internet Charts			
	5.3 List the criteria to be a registered member of DThRBN	Explain the criteria to be a registered member of DThRBN				
General Objective 6.0: Understand the ethics of dental therapy profession at Primary, Secondary and Tertiary health care facilities						
13-15	6.1 Explain ethical and legal framework in dentistry	Explain ethical and legal framework in dentistry	Textbooks Whiteboard Marker Multimedia			
	6.2 Explain the ethics of dental therapy profession in line with National Oral Health Policy	Explain the ethics of dental therapy profession in line with National Oral Health Policy	Projector Computer Internet Charts			
	6.3 Explain ethical decision-making,	Discuss ethical decision-making, legal				

	legal frameworks relevant to dental care delivery	frameworks relevant to dental care delivery				
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EVALUATION: C.A: 30%

EXAMINATION: 70%

YEAR I

SEMESTER II

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Dental Therapy Instrumentation I	COURSE CODE: DTH 121	CREDIT UNIT : 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide the students with the knowledge of basic dental therapy instruments		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the objectives of instrumentation 2.0 Know the dental therapy basic hand instruments 3.0 Know the hand instruments required for tooth carving, phantom, head and the oral examination of patients 4.0 Understand the effects of careless instrumentation		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Dental Therapy Instrumentation I				COURSE CODE: DTH 121	CREDIT UNIT: 2	
				CONTACT HOURS: 2	THEORETICAL: 1	
YEAR: I SEMESTER: II				PRE-REQUISITE:	PRACTICAL: 1	
GOAL: This course is designed to provide the students with the knowledge of basic dental therapy instruments						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0: Understand the objectives of instrumentation						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define Instrumentation 1.2 State aim of instrumentation 1.3 Explain the objectives of instrumentations on: <ul style="list-style-type: none"> • Confidence of operator and patients • Maintenance of personal safety standard 	Explain Instrumentation Explain aim of instrumentation Explain the objectives of instrumentations on <ul style="list-style-type: none"> • Confidence of operator and patients • Maintenance of personal safety standard 	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts			
General Objective 2.0: Know dental therapy basic hand instruments						
4-7	2.1 Describe dental therapy instruments	Explain dental therapy instruments	Textbooks Whiteboard Marker		Guide students to:	Jacquette Chisel

	<p>2.2 List types of dental therapy instruments</p> <p>2.3 List sets of hand scalers in dental therapy i.e heavy and fine</p> <p>2.4 Itemize the various groups of hand scalers for dental therapy e.g:</p> <ul style="list-style-type: none"> • Jacquette • Chisel, • Hoe, • Excavator, • Curettes, etc. <p>2.5 Explain the different types of scalers:</p> <ul style="list-style-type: none"> • Jacquette, • Hoe, • Chisels, • Excavators, • Curettes etc 	<p>Explain types of dental therapy instruments</p> <p>Explain sets of hand scalers in dental therapy i.e heavy and fine</p> <p>Explain the various groups of hand scalers for dental therapy e.g:</p> <ul style="list-style-type: none"> • Jacquette • Chisel, • Hoe, • Excavator, • Curettes, etc. <p>Explain the different types of Scalers:</p> <ul style="list-style-type: none"> • Jacquette • Chisel, • Hoe, • Excavator, • Curettes, etc. 	<p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Charts</p>	<p>Identify dental therapy instruments</p> <p>Draw and label dental therapy instruments</p>	<p>Identify dental therapy instruments</p> <p>Draw and label dental therapy instruments</p>	<p>Hoe</p> <p>Excavator</p> <p>Curettes</p> <p>Charts</p>
General Objective 3.0: Know the hand instruments required for tooth carving, phantom, head and the oral examination of patients						
8-10	3.1 Describe the hand instruments required for the carving	Explain the hand instruments required for the carving	Textbooks Whiteboard Marker	Identify the hand instruments required for the	Guide students to: Identify the hand instruments	Mixing Bowl

	<p>3.2 Describe the hand instruments required for phantom head</p> <p>3.3 Describe the hand instruments required for the oral examination of a patient</p> <p>3.4 Differentiate between instruments identified in 3.1, 3.2 and 3.3 above</p>	<p>Explain the hand instruments required for phantom head</p> <p>Explain the hand instruments required for the oral examination of a patient</p> <p>Explain how to differentiate between instruments identified in 3.1, 3.2 and 3.3 above</p>	<p>Multimedia Projector Computer Internet Charts</p>	<p>carving</p> <p>Identify the hand instruments required for phantom head</p> <p>Identify the hand instruments required for the oral examination of a patient.</p> <p>Sort the instruments identified above</p>	<p>required for the carving</p> <p>Identify the hand instruments required for phantom head</p> <p>Identify the hand instruments required for the oral examination of a patient.</p> <p>Sort the instruments identified above</p>	<p>Lecron Carver</p> <p>Mixing spatula</p> <p>Carving wax</p>
General Objective 4.0: Understand the effects of careless instrumentation						
11-14	<p>4.1 Define careless instrumentation</p> <p>4.2 Explain damage/injury that can occur as a result of careless instrumentation</p> <ul style="list-style-type: none"> • to the instrument • to the patient • to the operator <p>4.3 Explain how to avoid damage/injury</p>	<p>Explain careless instrumentation</p> <p>Explain damage/injury that can occur as a result of careless instrumentation</p> <ul style="list-style-type: none"> • to the instrument • to the patient • to the operator <p>Explain how to avoid damage/injury</p>	<p>Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts</p>			

	identified in 4.2 above	identified in 4.2 above				
	4.4 Explain importance of good instrument handling	Explain importance of good instrument handling				

EVALUATION: C.A: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Oral Physiology	COURSE CODE: DTH 122	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to equip students with the knowledge and skills of normal functions of the oral tissues		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Understand the deposit in the mouth 2.0 Know the composition, sources and functions of saliva 3.0 Understand the mechanisms of calcium and phosphorous metabolism 4.0 Understand the mechanisms of mastication and swallowing 5.0 Know the physiology of taste perception and appreciation. 6.0 Understand the mechanism and process of tooth eruption 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE TITLE: Oral Physiology			COURSE CODE: DTH 122		CREDIT UNIT : 2	
			CONTACT HOUR: 2		THEORETICAL: 1	
YEAR: I		SEMESTER: II		PRE-REQUISITE:		PRACTICAL: 1
GOAL: This course is designed to provide students with the knowledge and skills of normal functions of the oral tissues						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0: Know the deposit in the mouth						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define tooth deposits 1.2 Explain types of deposits in the mouth: <ul style="list-style-type: none"> • Soft deposits • Hard deposits • Dental stains 1.3 Discuss factors responsible for retention of deposits in the mouth 1.4 List types of soft deposits in the mouth: <ul style="list-style-type: none"> • Salivary follicle • Material alba 	Explain tooth deposits Explain types of deposits in the mouth: <ul style="list-style-type: none"> • Soft deposits • Hard deposits • Dental stains Explain factors responsible for retention of deposits in the mouth Explain types of soft deposits in the mouth: <ul style="list-style-type: none"> • Salivary 	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Identify: <ul style="list-style-type: none"> • Soft deposit • Hard deposit • Dental stains 	Guide students to: Identify: <ul style="list-style-type: none"> • Soft deposit • Hard deposit • Dental stains 	Sample of deposits

	<ul style="list-style-type: none"> • Food debris • Dental plaque • Dental stain 	<p>follicle</p> <ul style="list-style-type: none"> • Material alba • Food debris • Dental plaque 				
1.5	Describe each of the deposits in 1.4 above	Explain each of the deposits in 1.4 above				
1.6	Explain methods of removal for each of the deposits in 1.4 above	Explain methods of removal of each the deposits in 1.4 above				
1.7	Define calculus (hard deposit)	Explain calculus (hard deposit)				
1.8	Describe types of calculus	Explain types of calculus				
1.9	Differentiate between types of calculus	Explain the differences between types of calculus				
1.10	Explain the theories of calculus formation	Explain the theories of calculus formation				
1.11	Define dental stains	Explain dental stains				
1.12	Describe types of dental stains	Explain types of dental stains				

	1.13 State the causes of dental stains	Explain the causes of dental stains				
	1.14 Describe the methods of removing dental stains	Explain the methods of removing dental stains				
General Objective 2.0: Know the composition, sources and functions of saliva						
4-6	2.1 Define saliva	Explain saliva	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Identify location of salivary glands Draw salivary glands	Guide students to: Identify location of salivary glands Draw salivary glands	Posters Atlas Anatomical Models
	2.2 State the different sources of saliva e.g. the different glands and their locations	Explain the different sources of saliva e.g. the different glands and their locations				
	2.3 Explain types of saliva produced by each gland	Explain types of saliva produced by each gland				
	2.4 Describe the composition of saliva	Explain the composition of saliva				
	2.5 Explain the factors that affect the composition of saliva	Explain the factors that affect the composition of saliva				
	2.6 Explain the functions of saliva e.g.: • Lubrication • Mastication • Speech	Explain the functions of saliva e.g.: Lubrication • Mastication • Speech				

	<ul style="list-style-type: none"> • Digestive • Thirst • Anti-bacterial etc. 	<ul style="list-style-type: none"> • Digestive • Thirst • Anti-bacterial etc. 				
General Objective 3.0: Understand the mechanisms of calcium and phosphorous metabolism in Oral Health						
7-8	<p>3.1 Describe calcium metabolism</p> <p>3.2 Explain the uses of calcium and phosphorous in the body e.g.:</p> <ul style="list-style-type: none"> • Skeleton • Muscle • Action etc. <p>3.3 Describe the sources of calcium and phosphorous to the body e.g. diet and bones of the skeleton</p> <p>3.4 Describe the absorption of calcium and phosphorous from the intestine</p> <p>3.5 Explain the factors that influences the absorption of calcium</p>	<p>Explain calcium metabolism</p> <p>Explain the uses of calcium and phosphorous in the body e.g.:</p> <ul style="list-style-type: none"> • Skeleton • Muscle • Action etc. <p>Explain the sources of calcium and phosphorous to the body e.g. diet and bones of the skeleton.</p> <p>Explain the absorption of calcium and phosphorous from the intestine</p> <p>Explain the factors that influences the absorption of calcium</p>	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Charts</p>			

	<p>and phosphorous from the intestine e.g.:</p> <ul style="list-style-type: none"> • Vitamin D • Sunlight • Other food substances <p>3.6 State the distribution calcium and phosphorous in the body</p> <p>3.7 State factors that influence this distribution e.g.:</p> <ul style="list-style-type: none"> • Parathormone • Calcium phosphorous level blood <p>3.8 State factors that influences the excretion of calcium and phosphorous from the kidney e.g.:</p> <ul style="list-style-type: none"> • Vitamin D • Parathormone • Blood levels in 	<p>and phosphorous from the intestine e.g.:</p> <ul style="list-style-type: none"> • Vitamin D • Sunlight • Other food substances <p>Explain the distribution calcium and phosphorous in the body</p> <p>Explain factors that influence this distribution e.g.:</p> <ul style="list-style-type: none"> • Parathormone • Calcium phosphorous level blood <p>Explain factors that influences the excretion of calcium and phosphorous from the kidney e.g.:</p> <ul style="list-style-type: none"> • Vitamin D • Parathormone • Blood levels in calcium 				
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	<p>calcium phosphorous</p> <p>3.9 State the theories of calcification e.g. precipitation and seeding theories, etc.</p>	<p>phosphorous</p> <p>Explain the theories of calcification e.g.: precipitation and seeding theories, etc.</p>				
General Objective 4.0: Understand the mechanisms of mastication and swallowing						
9-10	<p>4.1 Define mastication</p> <p>4.2 Outline the structures involved in mastication e.g.:</p> <ul style="list-style-type: none"> • Teeth • Lips cheeks • Tongue • Hard palate <p>4.3 State the role of each structure in 4.2 above during mastication</p> <p>4.4 Explain the role of the different teeth during mastication e.g.:</p> <ul style="list-style-type: none"> • Incisors canines • Premolars • Molars 	<p>Explain mastication</p> <p>Explain the structures involved in mastication e.g.:</p> <ul style="list-style-type: none"> • Teeth • Lips cheeks • Tongue • Hard palate <p>Explain the role of each structure in 4.2 above during mastication</p> <p>Explain the role of the different teeth during mastication e.g.:</p> <ul style="list-style-type: none"> • Incisors canines • Premolars • Molars 	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Charts</p>			

	4.5 Explain incisors canines, premolars and molars	Explain incisors canines, premolars and molars				
	4.6 Define swallowing	Explain swallowing				
	4.7 Explain the mechanisms involved in swallowing	Explain the mechanisms involved in swallowing				
	4.8 Describe the different stages of swallowing	Explain the different stages of swallowing				
	4.9 Describe the voluntary and involuntary stages in swallowing	Describe the voluntary and involuntary stages in swallowing				
	4.10 Explain the reflex mechanisms involved in swallowing	Explain the reflex mechanisms involved in swallowing				
General Objective 5.0: Know the physiology of taste perception and appreciation						
11-13	5.1 Define taste sensation	Explain taste sensation	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Test for taste sensation in the mouth	Guide students to: Test for taste sensation in the mouth Draw and label the tongue	Salt
	5.2 Describe location of taste sensors (buds) in the mouth	Explain location of taste sensors (buds) in the mouth		Draw and label the tongue indicating taste buds		Sugar
	5.3 Explain types of taste namely: • Sweet	Explain types of taste namely: • Sweet		Draw and label the tongue		Maggi Lime Bitter Kola

	<ul style="list-style-type: none"> • Bitter • Salt • Sour • Umami <p>5.4 State the exact area for sensing these tastes on the tongue namely:</p> <ul style="list-style-type: none"> • The tips • Back of tongue • Lateral borders <p>5.5 Describe the nervous apparent pathway for taste appreciation e.g. chorda tympani lingual nerve to the brain</p> <p>5.6 Explain factors that influence appreciation of taste e.g.:</p> <ul style="list-style-type: none"> • Food flavour • Consistency • Conditioned reflexes • Smell 	<ul style="list-style-type: none"> • Bitter • Salt • Sour • Umami <p>Explain the exact area for sensing these tastes on the tongue namely:</p> <ul style="list-style-type: none"> • The tips • Back of tongue • Lateral borders <p>Explain the nervous apparent pathway for taste appreciation e.g. chorda tympani lingual nerve to the brain</p> <p>Explain factors that influence appreciation of taste e.g.:</p> <ul style="list-style-type: none"> • Food flavour • Consistency • Conditioned reflexes • Smell 			<p>indicating taste bud</p>	<p>Posters</p> <p>Charts</p> <p>Tongue Model</p>
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General Objective 6.0: Understand the mechanism and process of tooth eruption.						
14-15	6.1 Define tooth eruption	Explain tooth eruption	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts			
	6.2 Explain the mechanism of tooth eruption	Explain the mechanism of tooth eruption				
	6.3 State the different theories of tooth eruption	Explain the different theories of tooth eruption				
	6.4 Discuss the arguments for and against each theory in 6.3 above	Explain the arguments for and against each theory in 6.3 above				
	6.5 State the nature of eruption of each tooth	Explain the nature of eruption of each tooth				

EVALUATION: C.A.: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Care and Maintenance of Dental Equipment/Instruments	COURSE CODE: DTH 123	CREDIT UNIT : 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide the students with the knowledge and skills of care and maintenance of equipment and instruments		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Know the basic equipment and instruments used in the dental surgery 2.0 Know the calibration of the basic equipment and instruments used in the dental surgery 3.0 Know simple care and maintenance of hand instruments used in the dental surgery 4.0 Know simple care and maintenance of dental equipment 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Care and Maintenance of Dental Equipment/Instruments			COURSE CODE: DTH 123	CREDIT UNIT : 2		
			CONTACT HOURS: 2	THEORETICAL: 1		
YEAR: I SEMESTER: II			PRE-REQUISITE:	PRACTICAL: 1		
GOAL: This course is designed to provide the students with the knowledge and skills of care and maintenance of equipment and instruments.						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0 Know the basic equipment and instruments used in the dental surgery						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Differentiate between equipment and instruments 1.2 Explain basic equipment and instruments used in dental surgery e.g.: <ul style="list-style-type: none"> • Dental units • Cabinets • Dental chair • Spot lamp • Compressor • Sterilizers • Handpieces, etc. 	Explain the difference between equipment and instruments Explain basic equipment and instruments used in dental surgery e.g.: <ul style="list-style-type: none"> • Dental units • Cabinets • Dental chair • Spot lamp • Compressor • Sterilizers 	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Identify basic equipment and instruments used in dental surgery Demonstrate the use of the equipment identified above	Guide students to: Identify basic equipment and instruments used in dental surgery Demonstrate the use of the equipment identified above	Dental units Cabinets Dental chair Spot lamp Compressor Sterilizers Hand-pieces

	<p>1.3 Explain the uses of the equipment and instruments mentioned in 1.2 above</p> <p>1.4 Describe the working mechanism of the equipment and instrument identified in 1.2 above</p>	<ul style="list-style-type: none"> • Handpieces, etc. <p>Explain the uses of the equipment and instruments mentioned in 1.2 above</p> <p>Explain the working mechanism of the equipment and instrument and identified in 1.2 above</p>		Demonstrate the working mechanism of the equipment identified above	Demonstrate the working mechanism of the equipment identified above	
General Objective 2.0: Know the calibration of the basic equipment and instruments used in the dental surgery						
4-6	<p>2.1 Explain dental equipment and instruments into calibrated and non-calibrated ones</p> <p>2.2 Describe the units of calibration of dental surgery equipment and instruments</p> <p>2.3 Explain the calibration of dental surgery equipment and</p>	<p>Explain dental equipment and instruments into calibrated and non-calibrated ones</p> <p>Explain the units of calibration of dental surgery equipment and instruments</p> <p>Explain the calibration of dental surgery equipment and</p>	<p>TextbooksW hiteboardMar ker Multimedia Projector Computer Internet Charts</p>	<p>Demonstrate the calibration of dental surgery equipment and instruments</p> <p>Adjust the calibration of dental surgery equipment and instrument</p>	<p>Guide students to: Demonstrate the calibration of dental surgery equipment and instruments</p> <p>Adjust the calibration of dental surgery equipment and instrument</p>	<p>Dental Units</p> <p>Autoclave</p> <p>Ultrasonic Scalers</p> <p>Amalgamator</p> <p>Automated Mixers</p> <p>Weighing balance</p>

	instrument where necessary	instrument where necessary				
General Objective 3.0 Know simple care and maintenance of hand instruments used in the dental surgery						
7-9	<p>3.1 Explain the hand instruments used in the dental surgery e.g.:</p> <ul style="list-style-type: none"> • Scalers • Dental probes • Port polisher etc. <p>3.2 Explain simple maintenance of the hand tools identified in 3.1 above e.g.:</p> <ul style="list-style-type: none"> • Sharpening • Lubrication etc. <p>3.3 State the items required for sharpening of hand instruments e.g.:</p> <ul style="list-style-type: none"> • Arkansas stone • Lubricating oil etc. <p>3.4 Explain the principles of sharpening hand</p>	<p>Explain the hand instruments used in the dental surgery e.g.:</p> <ul style="list-style-type: none"> • Scalers • Dental probes • Port polisher etc. <p>Explain simple maintenance of the hand tools identified in 3.1 above e.g.:</p> <ul style="list-style-type: none"> • Sharpening • Lubrication etc. <p>Explain the items required for sharpening of hand instruments e.g.:</p> <ul style="list-style-type: none"> • Arkansas stone • Lubricating oil etc. <p>Explain the principles of sharpening hand</p>	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Charts</p>	<p>Demonstrate the simple maintenance of hand tools</p> <p>Identify the items required for sharpening of hand instruments</p> <p>Demonstrate how to Sharpen dental instruments</p> <p>Demonstrating how to clean and sterilize hand instruments</p>	<p>Guide students to:</p> <p>Demonstrate the simple maintenance of hand tools</p> <p>Identify the items required for sharpening of hand instruments</p> <p>Demonstrate how to Sharpen dental instruments</p> <p>Demonstrating how to clean and sterilize hand instruments</p>	<p>Dental units</p> <p>Cabinets</p> <p>Dental chair</p> <p>Spot lamp</p> <p>Compressor</p> <p>Sterilizers</p> <p>Hand-pieces</p> <p>Arkansas stone</p> <p>Lubricating oil</p>

	instruments e.g.: <ul style="list-style-type: none"> Lubrication of the Arkansas stone The firm grip of the Arkansas stone etc. 	instruments e.g.: <ul style="list-style-type: none"> Lubrication of the Arkansas stone The firm grip of the Arkansas stone etc. 				
General Objective 4.0: Know simple care and maintenance of dental equipment						
10-12	4.1 Outline dental equipment for dental surgery 4.2 Describe the component of the equipment mention in 4.1 above 4.3 Explain simple maintenance of the equipment in 4.1 above e.g.: <ul style="list-style-type: none"> Lubricating Cleaning etc. 	Explain dental equipment for dental surgery Explain the component of the equipment mention in 4.1 above Explain simple maintenance of the equipment in 4.1 above e.g.: <ul style="list-style-type: none"> Lubricating Cleaning etc. 	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts	Demonstrate how to operate the equipment in dental surgery Demonstrate the simple maintenance of the equipment in dental surgery	Guide students to: Demonstrate how to operate the equipment in dental surgery Demonstrate the simple maintenance of the equipment in dental surgery	Dental units Cabinets Dental chair Spot lamp Compressor Sterilizers Hand-pieces Arkansas stone Lubricating oil

EVALUATION C.A. 40%

EXAMINATION 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: General Pathology I	COURSE CODE: DTH 124	CREDIT UNIT : 2
	CONTACT HOURS: 2	THEORETICAL: 2
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 0
GOAL: This course is designed to equip the student with the knowledge of pathological processes		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Understand medical terms in pathology 2.0 Understand inflammation. 3.0 Understand the pathological conditions that exist in medicine 4.0 Understand the physical factors which causes injuries to the body. 5.0 Understand the biochemical processes that cause disease in the body. 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: General Pathology I			COURSE CODE: DTH 124	CREDIT UNIT : 2		
			CONTACT HOURS: 2	THEORETICAL: 2		
YEAR: I SEMESTER: II			PRE-REQUISITE:	PRACTICAL: 0		
GOAL: This course is designed to equip the student with the knowledge of pathological processes						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0: Understand medical terms in pathology						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define Medicine	Explain Medicine	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts			
	1.2 Define Pathology, physical signs and symptoms	Explain Pathology, physical signs and symptoms.				
	1.3 Define Aetiology	Explain Aetiology				
	1.4 List the divisions of aetiology and their causative agents	Explain the divisions of aetiology and their causative agents				
	1.5 Define the following pathological terms: <ul style="list-style-type: none"> • Complication • Sequela, • Diagnosis • Differential 	Explain the following pathological terms: <ul style="list-style-type: none"> • Complication • Sequela • Diagnosis • Differential 				

	diagnosis <ul style="list-style-type: none"> • Prognosis • Prophylaxis 	diagnosis <ul style="list-style-type: none"> • Prognosis • Prophylaxis. 				
General Objective 2.0: Understand Inflammation						
4-6	2.1 Define Inflammation 2.2 Describe the types of inflammations i.e. acute and chronic 2.3 Explain vasodilation 2.4 Describe the signs and symptoms of inflammation 2.5 Explain the different stages of inflammation 2.6 Explain the process of inflammatory changes	Explain Inflammation Explain the types of inflammations i.e. acute and chronic Explain vasodilation Explain the signs and symptoms of inflammation Explain the different stages of inflammation Explain the process of inflammatory changes	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts			
General Objective 3.0: Understand the pathological conditions that exist in medicine						
7-9	3.1 Define Abscess 3.2 Explain abscess formation 3.3 Define the following pathological conditions:	Explain Abscess Explain abscess formation Explain the following pathological conditions:	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts			

	<ul style="list-style-type: none"> • Cellulitis • Empyema • Pyaemia • Bacteremia • Septicemia • Lymphangitis • Lymphadenitis • Ulcer • Gangrene • Sequestrum • Sinus • Necrosis <p>3.4 Explain the formations of the conditions defined in 3.3 above</p>	<ul style="list-style-type: none"> • Cellulitis • Empyema • Pyaemia • Bacteremia • Septicemia • Lymphangitis • Lymphadenitis • Ulcer • Gangrene • Sequestrum • Sinus • Necrosis <p>Explain the formations of the conditions defined in 3.3 above</p>				
General Objective 4.0: Understand the physical factors which causes injuries to the body						
10-12	<p>4.1 Explain the physical factors which cause injuries to the body:</p> <ul style="list-style-type: none"> • Mechanical • Thermal • Electrical etc. <p>4.2 Differentiate between the different types of injuries on 4.1 above</p>	<p>Explain the physical factors which cause injuries to the body:</p> <ul style="list-style-type: none"> • Mechanical • Thermal • Electrical etc. <p>Explain the differences between the different types of injuries on 4.1 above</p>	<p>Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts</p>			

	4.3 Explain wound healing	Explain wound healing				
General Objective 5.0: Understand the biochemical processes that cause disease in the body						
13-14	5.1 Define biochemical processes	Define biochemical processes	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Charts			
	5.2 List the biochemical processes that causes diseases	Explain the biochemical processes that causes diseases				
	5.3 Explain the effects of poisonous substances on harmful foreign bodies on the human body	Explain the effects of poisonous substances on harmful foreign bodies on the human body				
	5.4 Explain the roles of dietary or nutritional disorders such as deficiency diseases and malnutrition	Explain the roles of dietary or nutritional disorders such as deficiency diseases and malnutrition				
	5.5 Explain the disorders of the endocrine glands and metabolism.	Explain the disorders of the endocrine glands and metabolism.				

EVALUATION: C.A.: 30%

EXAMINATION: 70%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Human Anatomy and Physiology II	COURSE CODE: DTH 125	CREDIT UNIT : 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE: DTH 112	PRACTICAL: 1
GOAL: This course is designed to provide the students with the knowledge of human body systems		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Know the respiratory system 2.0 Know the digestive system 3.0 Know the reproductive system 4.0 Know the endocrine system 5.0 Know the nervous system 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Human Anatomy And Physiology II		COURSE CODE: DTH 125		CREDIT UNIT : 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: I SEMESTER: II		PRE-REQUISITE: DTH 112		PRACTICAL: 1		
GOAL: This course is designed to provide students with the knowledge of human body systems						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0: Know the respiratory system						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define respiration	Explain respiration	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Atlas Posters Charts	Draw and label the respiratory system	Guide students to: Draw and label the respiratory system	Posters Anatomical Models
	1.2 List types of respiration	Explain types of respiration				
	1.3 List the organs of respiration (both internal and external)	Explain the organs of respiration (both internal and external)				
	1.4 Describe the respiratory system	Explain the respiratory system				
	1.5 Describe the mechanism of respiration	Explain the mechanism of respiration				

	1.6 Explain the function of each of the organs of respiration	Explain the function of each of the organs of respiration				
	1.7 Explain the purpose of respiration	Explain the purpose of respiration				
	1.8 Explain the conditions that determine frequency in respiration	Explain the conditions that determine frequency in respiration				
General Objective 2.0: Know the digestive system						
5-8	2.1 Define digestion	Explain digestive	Textbooks	Draw and label the alimentary canal	Guide students to: Draw and label the alimentary canal	Posters Anatomical Models
	2.2 Describe the digestive system	Explain the digestion system	Whiteboard			
	2.3 List the organs of digestion	Explain the organs of digestion	Marker			
	2.4 List the accessory organs of digestion (liver, bile ducts, gall bladder, pancreas)	Explain the accessory organs of digestion (liver, bile ducts, gall bladder, pancreas)	Multimedia Projector			
	2.5 Describe the mechanism of digestion	Explain the mechanism of digestion	Computer Internet Posters Atlas Charts			
				Draw and label the mouth, showing the oral part of the pharynx.	Draw and label the mouth, showing the oral part of the pharynx.	

	2.6 State the purpose of digestion	Explain the purpose of digestion				
	2.7 Describe the functions of the organs of the digestive system	Explain the functions of the organs of the digestive system				
	2.8 List the glands of the digestive system	Explain the glands of the digestive system				
	2.9 Explain the mouth, showing the oral part of the pharynx	Explain the mouth, showing the oral part of the pharynx				
General Objective 3.0: Know the reproductive system						
9-11	3.1 Describe the components of the male and female reproductive system	Explain the components of the male and female reproductive system	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Atlas Posters Charts	Draw and label urogenital system	Guide students to: Draw and label urogenital system	Posters Anatomical Models
	3.2 Explain the functions of the different components of the male and female reproductive system	Explain the functions of the different components of the male and female reproductive system				
	3.3 Explain the hormonal cycle and menstruation in female	Explain the hormonal cycle and menstruation in female				

General Objective 4.0: Know the endocrine system						
12-13	4.1 Describe the endocrine system	Explain the endocrine system	Textbooks Whiteboard Marker	Draw and label the glands	Guide students to: Draw and label the glands	Posters Anatomical Models
	4.2 List the glands of the endocrine system	Explain the glands of the endocrine system	Multimedia Projector Computer			
	4.3 Explain the functions of the glands of the endocrine system (primary and secondary)	Explain the functions of the glands of the endocrine system (primary and secondary)	Internet Atlas Posters Charts			
	4.4 Define hormone	Explain hormone				
	4.5 List the various types of hormones	Explain the various types of hormones				
	4.6 State the functions of each type of hormone	Explain the functions of each type of hormone				
General Objective 5.0: Know the nervous system						
14-15	5.1 Describe the structure of the nervous system	Explain the structure of the nervous system	Textbooks Whiteboard Marker Multimedia	Draw and label a typical nerve cell	Guide students to: Draw and label a typical nerve cell	Posters Anatomical Models
	5.2 State the types of the nervous system:	Explain the types of the nervous system:	Projector Computer Internet			

	<ul style="list-style-type: none"> • Central nervous system • Peripheral nervous system • The autonomic nervous system <p>5.3 List parts of the:</p> <ul style="list-style-type: none"> • Central nervous system • Peripheral nervous system • Autonomic nervous system <p>5.4 Define:</p> <ul style="list-style-type: none"> • Motor nerve • Sensory nerve <p>5.5 Explain the functions of the nervous system</p> <p>5.6 Explain impulse generation</p> <p>5.7 Describe receptor nerves, phasic and tonic receptors</p>	<ul style="list-style-type: none"> • a Central nervous system • Peripheral nervous system • The autonomic nervous system <p>Explain parts of the:</p> <ul style="list-style-type: none"> • Central nervous system • Peripheral nervous system • Autonomic nervous system <p>Explain:</p> <ul style="list-style-type: none"> • Motor nerve • Sensory nerve <p>Explain the functions of the nervous system</p> <p>Explain impulse generation</p> <p>Explain receptor nerves, phasic and tonic receptors</p>	Atlas Posters Charts	various parts of the nervous system Draw sections from various parts of the nervous system	parts of the nervous system Draw sections from various parts of the nervous system	
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5.8 Explain synaptic control of receptor nerves	Explain synaptic control of receptor nerves				
5.9 Explain synaptic transmission - electric and chemical	Explain synaptic transmission - electric and chemical				
5.10 Describe general features of chemical synaptic transmission	Explain general features of chemical synaptic transmission				
5.11 Explain integration, summation and facilitation	Explain integration, summation and facilitation				

EVALAUTION: C.A : 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Tooth Morphology and Tooth Carving II	COURSE CODE: DTH 126	CREDIT UNIT : 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE: DTH 111	PRACTICAL: 1
GOAL: This course is designed to equip students with the knowledge of tooth morphology and skills of tooth carving		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Know the respiratory system 2.0 Know the design for deciduous and permanent human dentition 3.0 Know tooth carving to scale 4.0 Know occlusion and articulation in Tooth Carving 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Tooth Morphology and Tooth Carving II			COURSE CODE: DTH 126	CREDIT UNIT : 2		
			CONTACT UNIT: 2	THEORETICAL: 1		
YEAR: I SEMESTER: II			PRE-REQUISITE: DTH 111	PRACTICAL: 1		
GOAL: This course is designed to equip students with the knowledge of tooth morphology and skills of tooth carving						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0: Know the respiratory system						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define Tooth carving 1.2 Outline Carving Instruments such as: <ul style="list-style-type: none"> • Lecron Carver • Wax Knife • Calliper 1.3 Explain carving materials: <ul style="list-style-type: none"> • Carving wax • Die Stone • Plaster 1.4 Describe the Proper Handling and	Explain Tooth carving Explain Carving Instruments such as: <ul style="list-style-type: none"> • Lecron Carver • Wax Knife • Calliper Explain carving materials: <ul style="list-style-type: none"> • Carving wax • Die Stone • Plaster Explain the Proper Handling and	Projector Internet Textbooks Journals Computer Whiteboard Marker	Identify Carving Instruments Demonstrate the proper Handling and Maintenance of Instruments Demonstrate the material preparation and selection. Demonstrate the anatomical accuracy in Carving	Guide Students to: Identify Carving Instruments Demonstrate the proper Handling and Maintenance of Instruments Demonstrate the material Preparation and Selection Demonstrate the anatomical accuracy in Carving	Carving Wax Teeth Sets Calliper Lecron Carver POP Vernier Calliper

	Maintenance of Instruments	Maintenance of Instruments		Demonstrate aesthetic and functional detailing	Demonstrate aesthetic and functional detailing	
	1.5 Describe the Material Preparation and Selection.	Explain the material preparation and selection				
	1.6 Describe the anatomical accuracy in Carving	Explain the anatomical accuracy in Carving				
	1.7 Describe aesthetic and functional detailing.	Explain aesthetic and functional detailing				
General Objective 2.0: Know the design for deciduous and permanent human dentition						
5-8	2.1 Explain the difference between deciduous and permanent teeth	Explain the difference between deciduous and permanent teeth	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Posters Charts	Identify the difference between deciduous and permanent teeth based on: <ul style="list-style-type: none"> • Unique anatomical features • Size • Shape • Eruption patterns 	<p>Guild students to: Identify difference between deciduous and permanent teeth based on:</p> <ul style="list-style-type: none"> • Unique anatomical features • Size • Shape • Eruption patterns <p>Identify specific characteristics of</p>	<p>Carving Instruments</p> <p>Carving Wax</p> <p>Teeth Sets</p> <p>Calliper</p> <p>POP</p>
	2.2 Explain the anatomical features of deciduous and permanent teeth	Explain the anatomical features of deciduous and permanent teeth				
	2.3 Describe the characteristics of each type of tooth within both dentitions	Explain the characteristics of each type of tooth within both dentitions				

	2.4 Describe Carving procedures of teeth	Explain Carving procedures of teeth		Identify specific characteristics of each type of tooth within both dentitions (incisors, canines, molars) to understand their functional and developmental roles Identify Carving procedures of teeth	each type of tooth within both dentitions (incisors, canines, molars) to understand their functional and developmental roles Identify Carving procedures of teeth	
General Objective 3.0: Know tooth carving to scale						
9-11	4.1 List measuring tools for tooth carving 4.2 Describe the application of measurement tools for accuracy 4.3 Describe tooth anatomy at various Scales	Explain measuring tools for tooth carving Explain the application of measurement tools for accuracy Explain tooth anatomy at Various Scales	Textbooks Whiteboard Marker Multimedia Projector Computer Internet Posters Charts	Demonstrate the ability to visualize and replicate the dimensions of each tooth in proportion to its natural size, ensuring accurate scaling Demonstrate the dental measurement tools to ensure that carved teeth match the desired dimensions and	Guide students to: Demonstrate the ability to visualize and replicate the dimensions of each tooth in proportion to its natural size, ensuring accurate scaling Demonstrate the dental measurement tools to ensure that carved teeth match the desired	Carving Instruments Carving Wax Teeth Sets Calliper

				<p>maintain anatomical accuracy</p> <p>Demonstrate measurement techniques to maintain scale across multiple carvings, understanding the importance of symmetry and proportionality</p> <p>Demonstrate the Tooth anatomy at Various Scale</p>	<p>dimensions and maintain anatomical accuracy</p> <p>Demonstrate measurement techniques to maintain scale across multiple carvings, understanding the importance of symmetry and proportionality</p> <p>Demonstrate the Tooth anatomy at Various Scales</p>	
General Objective 4.0: Know occlusion and articulation in Tooth Carving						
12-13	<p>4.1 Explain Occlusal Landmarks</p> <p>4.2 Describe the Assessment of Wear Patterns and Occlusion</p> <p>4.3 Explain the use of articulator</p>	<p>Explain Occlusal Landmarks</p> <p>Explain the Assessment of Wear Patterns and Occlusion</p> <p>Explain the use of articulator</p>	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Posters</p> <p>Charts</p>	<p>Identify key occlusal landmarks on each type of tooth (e.g., molars, premolars)</p> <p>Identify roles of the above in occlusion</p> <p>Demonstrate carving of occlusal surfaces to reflect</p>	<p>Guide students to:</p> <p>Identify key occlusal landmarks on each type of tooth (e.g., molars, premolars)</p> <p>Identify roles of the above in occlusion.</p>	<p>Carving Instruments</p> <p>Carving Wax</p> <p>Teeth Sets</p> <p>Calliper</p>

	4.4 Explain Application of Occlusal Concepts to Clinical Scenarios	Explain Application of Occlusal Concepts to Clinical Scenarios		<p>natural occlusal relationships</p> <p>Demonstrate carving of occlusal anatomy that allows for smooth articulation without interference, simulating natural bite and movement.</p> <p>Demonstrate the Application of Occlusal Concepts to Clinical Scenarios</p>	<p>Demonstrate carving of occlusal surfaces to reflect natural occlusal relationships</p> <p>Demonstrate carving of occlusal anatomy that allows for smooth articulation without interference, simulating natural bite and movement.</p> <p>Demonstrate the Application of Occlusal Concepts to Clinical Scenarios</p>	
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EVALAUTION: C.A: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Oral Hygiene	COURSE CODE: DTH 127	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 2
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide student with the knowledge and skills of cleaning the mouth		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <ol style="list-style-type: none"> 1.0 Understand oral physiotherapy and mechanism in cleaning the mouth 2.0 Know the types of tooth-brushes 3.0 Know the tooth brushing methods 4.0 Know the composition of dentifrice 5.0 Know inter-dental agents for the teeth 6.0 Know the traditional methods of cleaning the teeth 7.0 Know the effects of mouth rinsing and irrigation 8.0 Know agents for mouth wash 9.0 Know problems associated with oral hygiene 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Oral Hygiene		COURSE CODE: DTH 127		CREDIT UNIT: 3		
		CONTACT HOURS: 3		THEORETICAL: 2		
YEAR: I SEMESTER: II		PRE-REQUISITE:		PRACTICAL: 1		
GOAL: This course is designed to provide students with the knowledge and skill of cleaning the mouth						
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
General Objectives 1.0: Understand oral physiotherapy and mechanism in cleaning the mouth						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1	1.1 Define oral physiotherapy 1.2 State the objectives of oral physiotherapy 1.3 Describe physiotherapy cleansing mechanisms e.g.: <ul style="list-style-type: none"> • Tooth brushing • Natural method • Traditional method etc. 1.4 Define gingivae (gum) massage	Explain oral physiotherapy Explain the objectives of physiotherapy Explain physiotherapy cleansing mechanisms e.g. <ul style="list-style-type: none"> • Tooth brushing • Natural method • Traditional method etc. Explain gingivae (gum) massage	Projector Internet Textbooks Journals Computer Whiteboard Marker Charts			

	1.5 State the benefits of gingivae (gum) massage	Explain the benefits of gingivae (gum) massage				
General Objective 2.0: Know the types of tooth-brushes						
2-3	<p>2.1 Define Tooth-brush</p> <p>2.2 Explain types of tooth-brushes:</p> <ul style="list-style-type: none"> • Manual • Electric • Smart etc. <p>2.3 Explain the characteristics of a toothbrush including:</p> <ul style="list-style-type: none"> • Its Handle • Head • Bristles <p>2.4 Explain the preferred brushing plane for a toothbrush</p> <p>2.5 Describe the care of the toothbrush</p>	<p>Explain Tooth-brush</p> <p>Explain types of tooth-brushes:</p> <ul style="list-style-type: none"> • Manual • Electric • Smart etc. <p>Explain the characteristics of a toothbrush including:</p> <ul style="list-style-type: none"> • Its Handle • Head • Bristles • <p>Explain the preferred brushing plane for a toothbrush</p> <p>Explain the care of the toothbrush</p>	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Posters</p> <p>Charts</p>	<p>Identify types of toothbrushes</p> <p>Identify the plane of tooth brushing using dental model</p> <p>Identify the properties of natural and nylon bristles for toothbrushes. e.g.:</p> <ul style="list-style-type: none"> • Hard • Medium • Soft <p>Demonstrate how to care for toothbrush</p>	<p>Guide students to:</p> <p>Identify types of toothbrushes</p> <p>Identify the plane of tooth brushing using dental model</p> <p>Identify the properties of natural and nylon bristles for toothbrushes. e.g.:</p> <ul style="list-style-type: none"> • Hard • Medium • Soft <p>Demonstrate how to care for toothbrush</p>	<p>Manual tooth-brush</p> <p>Electronic tooth-brush</p> <p>Denture brush</p> <p>Mouth (Dental) model</p> <p>Cup</p> <p>Brush holder</p>

General Objective 3.0: Know the tooth brushing methods						
4-5	<p>3.1 Describe the tooth brushing methods e.g.:</p> <ul style="list-style-type: none"> • Press-roll-technique • Modified stillman's • Bass • Charters • Vertical or horizontal • Electronic toothbrush technique etc. <p>3.2 Differentiate between the methods listed in 3.1 above in tooth brushing</p> <p>3.3 Highlight the advantages and disadvantages of each method listed in 3.1 above</p> <p>3.4 Describe areas that require emphasis during tooth brushing</p>	<p>Explain the tooth brushing methods e.g.:</p> <ul style="list-style-type: none"> • Press-roll-technique • Modified stillman's • Bass • Charters • Vertical or horizontal • Electronic toothbrush technique etc. <p>Explain different methods listed in 3.1 above in tooth brushing</p> <p>Explain the advantages and disadvantages of each method listed in 3.1 above</p> <p>Explain areas that require emphasis during tooth brushing</p>	<p>Textbooks Whiteboard Marker Multimedia Projector Computer Internet Posters Charts</p>	<p>Demonstrate the tooth brushing methods</p> <p>Identify areas that require emphasis during tooth brushing</p> <p>Create a tooth brush album</p>	<p>Guide students to: Demonstrate the tooth brushing methods</p> <p>Identify areas that require emphasis during tooth brushing</p> <p>Create a tooth brush album</p>	<p>Mouth (Dental) model</p> <p>Brushes</p>

	3.5 Explain the effects of improper tooth brushing	Explain the effects of improper tooth brushing				
	3.6 Explain the corrective measures to adopt in solving problems identified in 3.5 above	Explain the corrective measures to adopt in solving problems identified in 3.5 above				
General Objective 4.0: Know the composition of dentifrice						
6-7	<p>4.1 Define dentifrice</p> <p>4.2 List types of dentifrice</p> <p>4.3 List the composition of the dentifrice</p> <p>4.4 Describe the composition of dentifrices e.g.:</p> <ul style="list-style-type: none"> • Abrasive solvent • Detergent • Fillers • Flavouring • Chemical additives etc. 	<p>Explain dentifrice</p> <p>Explain types of dentifrice</p> <p>Explain the composition of the dentifrice</p> <p>Explain the composition of dentifrices e.g.:</p> <ul style="list-style-type: none"> • Abrasive solvent • Detergent • Fillers • Flavouring • Chemical additives etc. 	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Multimedia</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Posters</p> <p>Charts</p>	<p>Identify the composition of dentifrices</p> <p>Create a dentifrice album</p>	<p>Guide students to:</p> <p>Identify the composition of dentifrices e.g:</p> <p>Create a dentifrice album</p>	<p>Solvents</p> <p>Detergent</p> <p>Fillers</p> <p>Abrasives</p> <p>Flavour</p> <p>Chemical additive</p> <p>Brushes</p>

	4.5 List the uses of the components identified in 4.4 above	Explain the uses of the components identified in 3.4 above				
General Objective 5.0: Know inter-dental agents for the teeth						
8-9	<p>5.1 Explain inter-dental agents e.g.:</p> <ul style="list-style-type: none"> • Wood-points • Interdens • Floss silk • Port polishers • Polishing strip etc. <p>5.2 Describe uses of cleaning agents in 5.1 above</p> <p>5.3 State the advantages and disadvantages of the agents in 5.1 above</p>	<p>Explain inter-dental cleaning agents e.g.:</p> <ul style="list-style-type: none"> • Wood-points • Interdens • Floss silk • Port polishers • Polishing strip etc. <p>Explain uses of cleaning agents in 5.1 above</p> <p>Explain the advantages and disadvantages of the agents in 5.1 above</p>	<p>Whiteboard</p> <p>Marker</p> <p>Computer</p> <p>Internet</p> <p>Chart</p> <p>Projectors</p> <p>Journals</p> <p>Textbooks</p> <p>Pictorials</p> <p>Visual Aids</p>	<p>Identify inter-dental teeth cleaning agents</p> <p>Demonstrate how to use inter-dental teeth cleaning agents</p>	<p>Guide students to:</p> <p>Identify inter-dental teeth cleaning agents</p> <p>Demonstrate how to use inter-dental teeth cleaning agents</p>	<p>Wood-points</p> <p>Interdens</p> <p>Floss silk</p> <p>Port polishers</p> <p>Polishing strip</p> <p>Mouth Model</p>
General Objective 6.0: Know the traditional methods of cleaning the teeth						
10-11	<p>6.1 Describe the traditional methods of tooth cleaning e.g.:</p> <ul style="list-style-type: none"> • Chewing Sticks • Charcoal • Ashes • Broken Plates 	<p>Explain the traditional methods of tooth cleaning e.g.:</p> <ul style="list-style-type: none"> • Chewing Sticks • Charcoal • Ashes • Broken Plates 	<p>Whiteboard</p> <p>Marker</p> <p>Computer</p> <p>Internet</p> <p>Chart</p> <p>Projectors</p> <p>Journals</p> <p>Textbooks</p>	<p>Identify the traditional method of tooth cleaning</p> <p>Create an album for types of chewing sticks</p>	<p>Guide students to:</p> <p>Identify the traditional method of tooth cleaning</p>	<p>Chewing Sticks</p> <p>Charcoal</p> <p>Ashes</p>

	<ul style="list-style-type: none"> • Finger • Fine Sand • Salt etc. <p>6.2 Outline the advantages and disadvantages of the traditional cleaning agents</p> <p>6.3 Explain the acceptable traditional cleaning agents</p>	<ul style="list-style-type: none"> • Finger • Fine Sand • Salt etc. <p>Explain the advantages and disadvantages of the traditional cleaning agents</p> <p>Explain the acceptable traditional cleaning agents</p>	Pictorials Visual Aids		Create an album for types of chewing sticks	Broken plates Finger Fine sand Salt
General Objective 7.0: Know the effects of mouth rinsing and oral irrigation						
12-13	<p>7.1 Define mouth rinsing</p> <p>7.2 Define oral irrigation</p> <p>7.3 Explain the device used for oral irrigation</p> <p>7.4 Explain the objective for mouth rinsing and oral irrigation</p> <p>7.5 Differentiate between mouth rinsing and oral irrigation</p>	<p>Explain mouth rinsing</p> <p>Explain oral irrigation</p> <p>Explain the device used for oral irrigation</p> <p>Explain the objective for mouth rinsing and oral irrigation.</p> <p>Explain the differences between mouth rinsing and oral irrigation</p>	<p>Whiteboard</p> <p>Marker</p> <p>Computer</p> <p>Internet</p> <p>Chart</p> <p>Projectors</p> <p>Journals</p> <p>Textbooks</p> <p>Pictorials</p> <p>Visual Aids</p>	<p>Identify the devices used for oral irrigation</p> <p>Demonstrate mouth rinsing and oral irrigation.</p>	<p>Guide students to:</p> <p>Identify the devices used for oral irrigation</p> <p>Demonstrate mouth rinsing and oral irrigation.</p>	<p>Enema</p> <p>Hunt</p> <p>Syringe</p> <p>Water flossier</p> <p>Disposable syringe</p> <p>Water chips</p>

	7.6 State indications for mouth rinsing and oral irrigation	Explain indications for mouth rinsing and oral irrigation				
General Objective 8.0: Know agents for mouth wash						
14	8.1 Define mouth wash 8.2 Define mouth wash agents 8.3 List types of mouth wash agents: <ul style="list-style-type: none"> • Anti-bacterial agents • Oxygenating agents • Astringents • Deodorising agents • Anodynes etc. 8.4 Explain the use of mouth wash agents 8.5 Explain advantages and disadvantages of mouth wash agents 8.6 Define disclosing agent 8.7 State the purposes of a disclosing agent.	Explain mouth wash Explain mouth wash agents Explain types of mouth wash agents: <ul style="list-style-type: none"> • Anti-bacterial agents • Oxygenating agents • Astringents • Deodorising agents • Anodynes etc. Explain the use of mouth wash agents Explain advantages and disadvantages of mouth wash agents Explain disclosing agent Explain the purposes of a disclosing agent	Whiteboard Marker Computer Internet Chart Projectors Journals Textbooks Pictorials Visual Aids	Identify mouth wash agents Identify disclosing agents	Guide students to: Identify mouth wash agents Identify disclosing agents	Mouth wash agents

General Objective 9.0: Know problems associated with oral hygiene						
15	<p>9.1 Explain common oral hygiene related problems e.g.:</p> <ul style="list-style-type: none"> • Mouth odour • Gum bleeding • Caries • Sensitivity • Oral ulcerations etc. <p>9.2 Explain the causes for 9.1 above</p> <p>9.3 List oral hygiene aids to solve 9.2 above</p>	<p>Explain common oral hygiene related problems e.g.:</p> <ul style="list-style-type: none"> • Mouth odour • Gum bleeding • Caries • Sensitivity • Oral ulcerations etc. <p>Explain the causes for 9.1 above</p> <p>Explain oral hygiene aids to solve 9.2 above</p>	<p>Whiteboard Marker Computer Internet Chart Projectors Journals Textbooks Pictorials Visual Aids</p>	<p>Identify common oral hygiene related problems</p>	<p>Guide students to: Identify common oral hygiene related problems</p>	<p>Visual Aid Charts</p>

EVALUATION: C.A: 40%

EXAMINATION: 60%

YEAR II

SEMESTER I

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPHY		
COURSE: Oral Anatomy	COURSE CODE: DTH 211	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide the student with knowledge and skills of the anatomy of oral cavity		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Know embryology of Face and Oral structures 2.0 Know the stages of tooth formation 3.0 Understand the group of the deciduous dentition 4.0 Understand the various attachments of teeth 5.0 Understand the various disorders of some tooth structures 6.0 Understand the structure and development of the pulp 7.0 Understand the gingivae and the eruption process of the teeth 8.0 Know the Oral cavity		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Oral Anatomy			COURSE CODE: DTH 211		CREDIT UNIT: 2	
			CONTACT HOURS: 2		THEORETICAL: 1	
YEAR: II SEMESTER: I			PRE-REQUISITE:		PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide the student with knowledge and skills of the anatomy of oral cavity						
General Objective 1.0: Know embryology of Face and Oral structure						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define embryology 1.2 Describe the stages of the development of facial structure 1.3 Describe the oral structure 1.4 Describe the development of 1.3 above 1.5 Describe foetus formation	Explain embryology Explain the stages of the development of facial structure Explain the various oral structure Explain the stages of the development of 1.3 above Explain foetus formation	Whiteboard Marker Computer Internet Chart Projectors Journals Textbooks Pictorials Visual Aids	Draw and label the stages of the development of facial structure Draw the transverse section of a tooth Draw the stages of the embryonic development of oral structure Observe the oral structures Draw the vertical/cross section of the foetus formation	Guide students to: Draw and label the stages of the development of facial structure Draw the transverse section of a tooth Draw the stages of the embryonic development of oral structure Observe the oral structures Draw the vertical/cross	Anatomical Model

					section of the foetus formation	
General Objective 2.0: Know the stages of tooth formation						
4-5	2.1 Define Odontogenesis	Explain Odontogenesis	Whiteboard Marker Computer	Draw the stages in 2.2 above	Guide students to: Draw the stages in 2.2 above	Microscope Slides
	2.2 Outline the stages of tooth formation	Explain the stages of tooth formation	Internet Chart Projectors	Draw the cross-sectional tissues of the teeth	Draw the cross-sectional tissues of the teeth	Reagents
	2.3 Describe the stages in 2.2 above	Explain the stages in 2.2 above	Journals Textbooks Pictorials	Observe the stages in 2.1, 2.4, 2.5 and 2.6	Observe the stages in 2.1, 2.4, 2.5 and 2.6	
	2.4 Describe the tissues of the teeth	Explain the tissues of the teeth	Visual Aids			
	2.5 Describe the enamel organ	Explain the enamel organ				
	2.6 Describe the epithelial tissues of the enamel organ	Explain the epithelial tissues of the enamel organ				
General Objective 3.0: Understand the group of the deciduous dentition						
6	3.1 Define deciduous dentition	Explain deciduous dentition	Whiteboard Marker Computer			
	3.2 Describe the types of teeth in deciduous dentition	Explain the types of teeth in deciduous dentition	Internet Chart Projectors Journals			
	3.3 Describe the functions of	Explain the functions	Textbooks			

	each type of teeth in 3.2 above	of each type of teeth in 3.2 above	Pictorials Visual Aids			
	3.4 Describe the deciduous dental formula	Explain the deciduous dental formula				
	3.5 Describe the eruption dates and sequence	Explain the eruption dates and sequence				
General Objective 4.0: Understand the various attachments of teeth						
7	4.1 Define teeth attachment	Explain teeth attachment	Whiteboard Marker Computer			
	4.2 Explain teeth attachment e.g.: <ul style="list-style-type: none"> • Periodontal ligament • Alveolar bone process • Gum-tissue 	Explain teeth attachment e.g.: <ul style="list-style-type: none"> • Periodontal ligament • Alveolar bone process • Gum-tissue 	Internet Chart Projectors Journals Textbooks Pictorials Visual Aids			
	4.3 List types of Periodontal ligament	List types of Periodontal ligament				
General Objective 5.0: Understand disorders of some tooth structures.						
8-9	5.1 List the disorder in enamel and dentine formation	Explain the disorder in enamel and dentine formation	Whiteboard Marker Computer Internet Chart Projectors			

	5.2 Explain the disorders mentioned in 5.1 above	Explain the disorders mentioned in 5.1 above	Journals Textbooks Pictorials			
	5.3 Explain the genesis of the disorders mentioned in 5.1 above	Explain the genesis of the disorders mentioned in 5.1 above	Visual Aids			
	5.4 Describe preventive measures of managing the disorders mentioned in 5.1	Explain preventive measures of managing the disorders mentioned in 5.1				
General Objective 6.0: Understand the structure and development of the pulp						
10-11	6.1 Define the pulp	Explain the pulp	Whiteboard Marker			
	6.2 Describe the pulp	Explain the pulp	Computer Internet			
	6.3 Explain the Origin and development of the pulp	Explain the Origin and development of the pulp	Chart Projectors Journals Textbooks			
	6.4 Describe the fibres in pulp	Explain the fibres in pulp	Pictorials Visual Aids			
	6.5 Describe the blood vessels in pulp	Explain the blood vessels in pulp				
	6.6 State the functions of the pulp	Explain the functions of the pulp				

General Objective 7.0: Understand the gingivae and the eruption process of the teeth						
12	7.1 Define gingivae	Explain gingivae	Whiteboard Marker			
	7.2 List the types of gingivae	Explain the types of gingivae	Computer Internet Chart			
	7.3 Describe the types of gingivae listed in 7.2 above	Explain the types of gingivae listed in 7.2 above	Projectors Journals Textbooks Pictorials			
	7.4 Describe the eruption process of teeth	Explain the eruption process of teeth	Visual Aids			
General Objective 8.0: Know the oral cavity						
13-14	8.1 Define Oral cavity	Define Oral cavity	Whiteboard Marker	Draw and label:	Guide students to:	
	8.2 Describe the structures of the oral cavity	Explain the structures of the oral cavity	Computer Internet Chart	<ul style="list-style-type: none"> • Oral cavity • Mandible • Maxillae • A tooth • A tooth in cross-section 	Draw and label:	Model
	8.3 Describe the structures of the oral cavity listed in 8.2 above	Explain the structures of the oral cavity listed in 8.2 above	Projectors Journals Textbooks Pictorials Visual Aids	Draw and label the lateral view of the skull showing the salivary glands	<ul style="list-style-type: none"> • Oral cavity • Mandible • Maxillae • A tooth • A tooth in cross-section 	Charts Pictorials
					Draw and label the lateral view of the skull showing the salivary glands	

EVALUATION: C.A: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPHY		
COURSE: Phantom Head	COURSE CODE: DTH 212	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 1
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 2
GOAL: This course is designed to equip the students with knowledge and pre-clinical practical skills in periodontal debridement (scaling and polishing).		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
<ul style="list-style-type: none"> 1.0 Know the components of the phantom head 2.0 Know the instruments used in periodontal debridement 3.0 Know the various grasps in relation to periodontal debridement 4.0 Know the correct working angulation for fulcrum for procedures in periodontal debridement 5.0 Know the scaling and polishing procedure on the phantom head 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Phantom Head		COURSE CODE: DTH 212			CREDIT UNIT: 3	
		CONTACT HOURS: 3			THEORETICAL: 1	
YEAR: II	SEMESTER: I	PRE-REQUISITE:			PRACTICAL: 2	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip the students with knowledge and pre-clinical practical skills in periodontal debridement (scaling and polishing).						
General Objective 1.0: Know the components of the phantom head						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define phantom head 1.2 List the components of the phantom head 1.3 Explain the importance of each component of phantom head listed in 1.2 above to the human head	Explain phantom head Explain the components of the phantom head Explain the importance of each component of phantom head listed in 1.2 above to the human head	Textbooks Whiteboard Marker Projector Computer Internet. Journals Charts	Identify the components of the phantom head	Guide students to: Identify the components of the phantom head	Phantom Head
General Objective 2.0: Know the instruments used in periodontal debridement						
4-5	2.1 Define Periodontal Debridement	Explain Periodontal Debridement	Textbooks. Whiteboard Marker Projector Computer	Identify the types of instrument used in periodontal debridement	Guide students: Identify the types of instrument used	Gross Scalers

	2.2 List the types of instrument used in periodontal debridement	Explain the types of instrument used in periodontal debridement	Internet Journal Charts		in periodontal debridement	
	2.3 Describe the function of instruments in 2.2 above	Explain the function of instruments above				
	2.4 Describe the instruments in 2.2 above	Explain the instruments above				
General Objective 3.0: Know the various grasps in relation to periodontal debridement						
6-7	3.1 Define instrument grasps	Explain instrument grasps	Textbooks Whiteboard Marker		Guide students to:	
	3.2 State the grasps used in periodontal debridement	Explain the various grasps used in periodontal debridement	Projector Computer Internet Journal Charts	Demonstrate instrument grasps	Demonstrate instrument grasps	
	3.3 Describe the various grasps in 3.2 above in periodontal debridement	Explain the various grasps above in periodontal debridement				
General Objective 4.0: Know the correct working angulation and fulcrum for various procedure in periodontal debridement						
8-11	4.1 Define angulation	Explain angulation	Textbooks. Whiteboard	Demonstrate angulation in	Guide students to:	Dental chair
	4.2 Describe angulation in dental Instrumentation	Explain angulation in dental Instrumentation	Marker Computer Projector	dental Instrumentation	Demonstrate angulation in dental	Dental instruments

	4.3 Describe the differences between angulation in scaling and root planning procedures	Explain the differences between angulation in scaling and root planning procedures	Journal Internet Charts	Identify the difference between angulation in scaling and root planning procedures	Instrumentation Identify the difference between angulation in scaling and root planning procedures	
	4.4 Describe the removal of deposits from teeth applying angulation	Explain the removal of deposits from teeth applying angulation		Demonstrate the process of removing deposits from teeth applying angulation	Demonstrate the process of removing deposits from teeth applying angulation	
General Objective 5.0: Know the scaling and polishing procedures on the phantom head						
12-14	5.1 Explain how to fix and adjust the phantom head to the workbench	Explain how to fix and adjust the phantom head to the workbench	Textbooks Whiteboard Marker Projector	Demonstrate the preparation of the phantom head for practical	Guide students to: Demonstrate the preparation of the phantom head for practical.	Phantom Head
	5.2 Describe deposit removal from the mouth of the phantom head	Explain deposit removal from the mouth of the phantom head	Computer Journals Internet Charts	Demonstrate how to fix and adjust the phantom head to the workbench for easy operation		
	5.3 Describe polishing procedure after scaling	Explain polishing procedure after scaling			Demonstrate how to Fix and adjust the phantom head to the workbench	

			Sort and set the instruments required for the scaling and polishing procedure	for easy operation	
			Select the correct instruments for removing deposits on the teeth of the phantom head	Sort and set the instruments required for the scaling and polishing procedure	
			Demonstrate the removal of deposits from the teeth of the phantom head, using the correct instruments above, at the right position, with the correct grasps and motions	Select the correct instruments for removing deposits on the teeth of the phantom head	
			Select the correct instruments for	Demonstrate the removal of deposits from the teeth of the phantom head, using the correct instruments above, at the right position, with the correct grasps and motions	

				<p>polishing the teeth of the phantom head.</p> <p>Demonstrate Polishing teeth of the phantom head after successful removal of deposits using the instruments above</p> <p>Demonstrate the application precaution to prevent injuries to the soft and hard tissue during scaling and polishing.</p>	<p>Select the correct instruments for polishing the teeth of the phantom head.</p> <p>Demonstrate Polishing teeth of the phantom head after successful removal of deposits using the instruments above</p> <p>Demonstrate the application precaution to prevent injuries to the soft and hard tissue during scaling and polishing.</p>	
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EVALUATION: C.A: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPHY		
COURSE: Oral Health Education	COURSE CODE: DTH 213	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with the knowledge and skills of good oral health		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the importance of good oral health 2.0 Know the materials required for maintenance of good oral health 3.0 Understand the food necessary for the maintenance of good oral health		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Oral Health Education			COURSE CODE: DTH 213		CREDIT UNIT: 2	
			CONTACT HOURS: 2		THEORETICAL: 1	
YEAR: II SEMESTER: I			PRE-REQUISITE:		PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with the knowledge and skills of good oral health						
General Objective 1.0: Understand the importance of good oral health						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define health	Explain health	Textbooks Whiteboard			
	1.2 Explain dental health education	Explain dental health education	Marker Projector Computer			
	1.3 Explain the importance of good oral health	Explain the important of good oral health	Journals Internet Charts			
	1.4 List the health risk associated with poor oral health	Explain the health risk associated with poor oral health				
	1.5 State the relationship between oral and general health	Explain the relationship between oral and general health				
General Objective 2.0: Know the materials required for maintenance of good oral health						
5-8	2.1 Explain material used for cleaning the mouths such as:	Explain material used for cleaning the mouths such as:	Textbooks Whiteboard Marker	Identify material used for cleaning the mouths	Guide students to:	Toothpaste Toothbrush

	<ul style="list-style-type: none"> • Toothpaste • Toothbrush • Wood points • Dental floss • Chewing stick • Oral rinse etc. 	<ul style="list-style-type: none"> • Toothpaste • Toothbrush • Wood points • Dental floss • Chewing stick • Oral rinse etc. 	Projector Computer Atlas Journals Internet Charts	Identify the types of toothbrushes Demonstrate the tooth brushing techniques Demonstrate the uses of wood point and dental floss Identify the types of chewing sticks Demonstrate the use of chewing stick	Identify material used for cleaning the mouths Identify the types of toothbrushes Demonstrate the tooth brushing techniques Demonstrate the uses of wood point and dental floss Identify the types of chewing sticks Demonstrate the use of chewing stick	Wood points Dental floss Chewing stick Posters
2.2	Describe the composition of a toothpaste	Explain the composition of a toothpaste.				
2.3	State the importance of fluoride in toothpaste	Explain the importance of fluoride in toothpaste				
2.4	Describe a good toothbrush	Explain a good toothbrush				
2.5	Explain types of toothbrushes	Explain types of toothbrushes				
2.6	Explain the differences observed in the brushes mentioned in 2.6 above	Explain the differences observed in the brushes mentioned in 2.6 above				
2.7	Describe tooth brushing techniques	Explain tooth brushing techniques				
2.8	Explain the advantages and disadvantages of the techniques listed in 2.7 above	Explain the advantages and disadvantages of the techniques listed in 2.7 above				

	2.9 Describe the types of chewing sticks	Explain the types of chewing sticks				
	2.10 Explain the uses of the chewing sticks listed in 2.9	Explain the uses of the chewing sticks listed in 2.9				
	2.11 Explain advantages and disadvantages of the chewing stick on the teeth and the gingivae	Explain advantages and disadvantages of the chewing stick on the teeth and the gingivae				
	2.12 State the specific use of wood point and dental floss	Explain the specific use of wood point and dental floss				
General Objective 3.0: Understand the food necessary for the maintenance of good oral health						
9-11	3.1 Define diet	Define diet	Textbooks Whiteboard			
	3.2 State the component of balance diet	Explain the component of balance diet	Marker Projector Computer			
	3.3 Explain the importance of food to general health	Explain the importance of food to general health	Journals Internet Charts			
	3.4 List the food for good oral health	List the food for good oral health				
	3.5 Explain self-cleansing food (fruits)	Explain self-cleansing food (fruits)				

	3.6 List example of self-cleansing fruits	Explain of self-cleansing fruits				
	3.7 State the role of food in the formation of caries and periodontitis	Explain the role of food in the formation of carries and periodontitis				
	3.8 State the effects of food deficiency on oral health	Explain the effects of the deficiency on oral health				

EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: NATIOAL DIPLOMA DENTAL THERAPHY		
COURSE: General Pathology II	COURSE CODE: DTH 214	CREDIT UNIT: 2
	CONTACT HOURS: 1	THEORETICAL: 2
YEAR: II SEMESTER: I	PRE-REQUISITE: DTH 124	PRACTICAL: 0
GOAL: This course is designed to provide the students with knowledge of pathological diseases		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <p>1.0 Understand bacterial infection in man</p> <p>2.0 Understand the wound healing process in man</p> <p>3.0 Understand congenital and hereditary disease of man</p> <p>4.0 Understand some gastrointestinal disease of man</p> <p>5.0 Understand neoplasm in man</p>		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: General Pathology II			COURSE CODE: DTH 214		CREDIT UNIT: 2	
			CONTACT HOURS: 2		THEORETICAL: 2	
YEAR: II SEMESTER: I			PRE-REQUISITE: DTH 124		PRACTICAL: 0	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide the students with knowledge of pathological diseases						
General Objective 1.0: Understand the bacterial Infection in man						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define Bacteria	Explain Bacteria	Textbooks Whiteboard			
	1.2 Explain bacterial infection in man	Explain bacterial infection in man	Marker Projector Computer			
	1.3 Describe the routes of bacterial infection in man	Explain the routes of bacterial infection in man	Journals Internet Charts Microscope			
	1.4 Explain the body reaction to bacterial infection	Explain the body reaction to bacterial infection	Slide			
	1.5 Differentiate between chronic and acute inflammation	Explain how to differentiate between chronic and acute inflammation				

	1.6 Explain pathogenic bacteria	Explain pathogenic bacteria				
General Objective 2.0: Understand the wound healing process in man						
5-8	2.1 Define wound	Define wound	Textbooks Whiteboard			
	2.2 Explain types of wounds	Explain types of wounds	Marker Projector Computer			
	2.3 Differentiate between a clean wound and infected wound	Explain the differences between a clean wound and infected wound	Journals Internet Charts			
	2.4 Explain the healing process in clean wound	Explain the healing process in clean wound				
	2.5 Explain the healing process in infected wound	Explain the healing process in infected wound				
General Objective 3.0: Understand congenital and hereditary diseases of man						
9-11	3.1 Define congenital	Explain congenital	Textbooks Whiteboard			
	3.2 Define hereditary	Explain hereditary	Marker Projector Computer			
	3.3 Describe congenital diseases	Explain congenital diseases	Journals Internet			

	3.4 Describe hereditary diseases of man	Explain hereditary diseases of man	Charts			
General Objective 4.0: Understand some gastrointestinal diseases of man						
12-13	4.1 Explain gastrointestinal diseases of man e.g.: <ul style="list-style-type: none"> • Gastroenteritis • Typhoid fever etc. 	Explain gastrointestinal diseases of man e.g.: <ul style="list-style-type: none"> • Gastroenteritis • Typhoid fever etc. 	Textbooks Whiteboard Marker Projector Computer Journals Internet Charts			
	4.2 Describe the causative agents of 4.1 above	Explain the causative agents of 4.1 above				
	4.3 Explain the pathogenesis of 4.1 above	Explain the pathogenesis of 4.1 above				
General Objective 5.0: Understand neoplasm in man						
14-15	5.1 Define precancerous condition	Explain precancerous condition	Textbooks Whiteboard Marker Projector Computer Journals Internet Charts			
	5.2 Explain the types of precancerous condition	Explain the types of precancerous condition				
	5.3 Define neoplasms	Explain neoplasms				

	<p>5.4 Explain classifications of neoplasms</p> <ul style="list-style-type: none"> • Behaviour • Tissue of origin 	<p>Explain classifications of neoplasms</p> <ul style="list-style-type: none"> • Behaviour • Tissue of origin 				
	<p>5.5 Explain behaviour neoplasm</p>	<p>Explain behaviour neoplasm</p>				
	<p>5.6 Explain neoplasm due to the tissue of origin</p>	<p>Explain neoplasm due to the tissue of origin</p>				
	<p>5.7 Define benign tumour</p>	<p>Explain benign tumour</p>				
	<p>5.8 Define malignant tumour</p>	<p>Explain malignant tumour</p>				
	<p>5.9 Differentiate between benign and malignant tumour</p>	<p>Explain the differences between benign and malignant tumour</p>				
	<p>5.10 Explain the characteristics of benign tumour</p>	<p>Explain the characteristics of benign tumour</p>				

	5.11 Explain the characteristic of malignant tumour	Explain the characteristic of malignant tumour				
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EVALUATION: CA 30%

EXAMINATION: 70%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE TITLE: Dental Instrumentation I	COURSE CODE: DTH 215	CREDIT UNIT: 2
	CONTACT HOURS: 1	THEORETICAL: 1
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to equip the students with knowledge and skills for simulation in phantom head studio using dental therapy hand instruments		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
1.0 Know dental therapy hand instruments		
2.0 Know the instruments for gross scaling		
3.0 Know the instruments for fine scaling		
4.0 Know the instruments and equipment for polishing of the teeth		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Dental Instrumentation I		COURSE CODE: DTH 215		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: II SEMESTER: I		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip the students with Knowledge and skills for simulation in phantom head studio using dental therapy hand instruments						
General Objective 1.0: Know dental therapy hand instruments						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Explain the instruments for examination of oral cavity: <ul style="list-style-type: none"> • Mouth mirror • Periodontal probe • Other probes • Tweezers 	Explain the instruments for examination of oral cavity: <ul style="list-style-type: none"> • Mouth mirror • Periodontal probe • Other probes • Tweezers 	Textbooks Whiteboard Marker Projector Computer Journals Internet Charts	Identify the instruments for examination of oral cavity Determine how to use probe to determine the depth of periodontal pocket Determine the presence of tooth decay using the caries probe	Guide students to: Identify the instruments for examination of oral cavity Determine how to use probe to determine the depth of periodontal pocket Determine the presence of tooth decay using the caries probe	Mouth mirror Periodontal probe College tweezers Caries probes
	1.2 Explain the instruments identified in 1.1	Explain the instruments identified in 1.1				
	1.3 Explain the functions of mouth mirror:	Explain the functions of mouth mirror:				

	<ul style="list-style-type: none"> • Illumination • Direct Vision • Indirect Vision • Retraction <p>1.4 Explain how to use probe to determine the depth of periodontal pocket</p> <p>1.5 Explain the presence of tooth decay using the caries probe</p> <p>1.6 Describe the uses of tweezers</p>	<ul style="list-style-type: none"> • Illumination • Direct Vision • Indirect Vision • Retraction <p>Explain how to use probe to determine the depth of periodontal pocket</p> <p>Explain the presence of tooth decay using the periodontal probe</p> <p>Explain the uses of tweezers</p>		Transfer material to and from the oral cavity using tweezers	Transfer material to and from the oral cavity using tweezers	
General Objective 2.0: Know the instruments for gross scaling						
5-8	<p>2.1 Define Gross scaling</p> <p>2.2 Describe the instruments for gross scaling e.g.:</p> <ul style="list-style-type: none"> • Jacquettes 1,2 and 3 • Hoes • Chisel • Gross excavators etc. 	<p>Explain Gross scaling</p> <p>Explain the instruments for gross scaling e.g.:</p> <ul style="list-style-type: none"> • Jacquettes 1,2 and 3 • Hoes • Chisel • Gross excavators etc. 	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Computer</p> <p>Journals</p> <p>Internet</p> <p>Charts</p>	<p>Identify the instruments for gross scaling</p> <p>Set the instruments ready for use</p> <p>Apply the jacquettes 1,2 and 3</p> <p>Apply the hoe scalers</p>	<p>Guide students to:</p> <p>Identify the instruments for gross scaling</p> <p>Set the instruments ready for use</p> <p>Apply the jacquettes 1,2 and 3</p>	<p>Jacquettes 1,2 and 3</p> <p>Hoes</p> <p>Chisel</p> <p>Gross excavators</p>

	2.3 Describe the application of jacquettes 1,2 and 3	Explain the application of jacquettes 1,2 and 3		Apply the chisel scalers	Apply the hoe scalers	
	2.4 Describe the application of hoe scalers	Explain the application of hoe scalers		Apply the gross excavators	Apply the chisel scalers	
	2.5 Describe the application of chisel scalers	Explain the application of chisel scalers			Apply the gross excavators	
	2.6 Describe the application of gross excavators	Explain the application of gross excavators				
	2.7 Describe the application of other instruments for gross scaling	Explain the application of other instruments for gross scaling				
General Objective 3.0: Know the instruments for fine scaling						
9-12	3.1 Define fine scaling	Explain fine scaling	Textbooks		Guide students to:	Drury scalers
	3.2 List instruments for fine scaling:	Explain instruments for fine scaling:	Whiteboard	Identify instruments for fine scaling	Identify instruments for fine scaling	Fine excavators
	<ul style="list-style-type: none"> • drury scalers • fine excavators • chisel (fine) • curettes • sickles etc. 	<ul style="list-style-type: none"> • drury scalers • fine excavators • chisel (fine) • curettes • sickles etc. 	<ul style="list-style-type: none"> • Marker • Projector • Computer • Journals • Internet • Charts 	Set the instruments ready for use	Set the instruments ready for use	Chisel (fine)
				Apply the drury scalers	Apply the drury scalers	Curettes

	3.3 Describe instruments in 3.2 above	Explain instruments in 3.2 above		Apply the fine excavator	Apply the fine excavator	Sickles
	3.4 Describe the application of drury scalars	Explain the application of drury scalars		Apply the fine chisel	Apply the fine chisel	
	3.5 Describe the application of fine excavators	Explain the application of fine excavators		Apply the cures	Apply the cures	
	3.6 Describe the application of fine chisel	Explain the application of fine chisel		Apply the sickles	Apply the sickles	
	3.7 Describe the application of cures	Explain the application of cures		Apply other fine scaling instruments for fine scaling	Apply other fine scaling instruments for fine scaling	
	3.8 Describe the application of the sickles	Explain the application of the sickles				
	3.9 Describe the application of other instruments for fine scaling	Explain the application of other instruments for fine scaling				

General Objective 4.0: Know the instruments and equipment's for polishing of the teeth						
13-14	4.1 Define tooth polishing	Define tooth polishing	Textbooks	Identify equipment for tooth polishing	Guide students to: Identify the equipment for tooth polishing	Dental units
	4.2 Describe equipment for tooth polishing: <ul style="list-style-type: none"> • Dental units • Spot light 	Explain equipment for tooth polishing: <ul style="list-style-type: none"> • Dental units • Spot light 	Whiteboard Marker Projector Computer	Identify instruments for tooth polishing	Identify the instruments for tooth polishing	Spot light Contra-angled hand piece
	4.3 Describe instruments for tooth polishing: <ul style="list-style-type: none"> • Contra-angled hand piece • Bristle brushes-wheel and cup types, • Rubber cups-small and large polisher 	Explain instruments for tooth polishing: <ul style="list-style-type: none"> • Contra-angled hand piece, • Bristle brushes-wheel and cup types, • Rubber cups-small and large polisher 	Journals Internet Charts	Attach the instruments to their equipment Carryout tooth Polishing	Attach the instruments to their equipment Carryout tooth Polishing	Bristle brushes-wheel Cup Small and large polisher

EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Dental Radiography I	COURSE CODE: DTH 216	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: 11 SEMESTER: 1	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with the knowledge and skills of Dental Radiography		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
1.0 Understand the principle of Radiography 2.0 Know the techniques of oral radiography 3.0 Know the hazards associated with radiography and their protective measures		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Dental Radiography I		COURSE CODE: DTH 216		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: 11 SEMESTER: 1		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with the knowledge and skills of Dental Radiography						
General Objective 1.0: Understand the principle of Radiography						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define the following terms: <ul style="list-style-type: none"> • Radiology • Radiography • X- ray Radiation • Medical imaging 1.2 Outline the history of radiography 1.3 List types of radiation and their uses 1.4 Explain the concept of the following: <ul style="list-style-type: none"> • Matter • Electricity • X- ray tube 	Explain the following terms: <ul style="list-style-type: none"> • Radiology • Radiography • X- ray Radiation • Medical imaging Explain the history of radiography Explain the types of radiation and their uses Explain the concept of the following: <ul style="list-style-type: none"> • Matter • Electricity • The X- ray tube 	Textbooks Whiteboard Marker Projector Computer Journals Internet Charts X-ray film Storage box			

	<ul style="list-style-type: none"> • Basic X- ray absorption • Scattered X-ray <p>1.5 Describe X-ray films</p> <ul style="list-style-type: none"> • Intra-oral film • Size and speed of Extra oral film, • Film properties etc. <p>1.6 Explain the following terms:</p> <ul style="list-style-type: none"> • Latent image formation • Latent image • Film processing etc. <p>1.7 Explain radiation factors:</p> <ul style="list-style-type: none"> • Exposure time • Kilovoltage • Tube-film distance • Focal spot size • Collimation • Filtration • Equipment efficiency 	<ul style="list-style-type: none"> • Basic X- ray absorption • Scattered X-ray <p>Explain X-ray films,</p> <ul style="list-style-type: none"> • Intra-oral film • Size and speed of Extra oral film, • Film properties etc. <p>Explain the following terms:</p> <ul style="list-style-type: none"> • Latent image formation • Latent image • Film processing etc. <p>Explain radiation factors:</p> <ul style="list-style-type: none"> • Exposure time • Kilovoltage • Tube-film distance • Focal spot size • Collimation • Filtration • Equipment efficiency 				
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	<p>1.8 Explain object factors:</p> <ul style="list-style-type: none"> • Thickness • Density • Object image distance • Image quality etc. <p>1.9 Explain image recording factors:</p> <ul style="list-style-type: none"> • Reduction of secondary radiation • Film storage etc. <p>1.10 Explain radiographic quantity</p>	<p>Explain object factors:</p> <ul style="list-style-type: none"> • Thickness • Density • Object image distance • Image quality etc. <p>Explain image recording factors:</p> <ul style="list-style-type: none"> • Reduction of secondary radiation • Film storage etc. <p>Explain radiographic quantity</p>				
General Objective 2.0: Know the techniques of oral radiography						
4-8	<p>2.1 Describe bisecting and paralleling techniques</p> <p>2.2 Describe patient positioning in different oral x- ray investigation</p> <p>2.3 Describe film placement and angulation procedure</p>	<p>Explain bisecting and paralleling techniques</p> <p>Explain patient positioning in different oral x- ray investigation</p> <p>Explain film placement and angulation procedure using the bisecting</p>	Journals, Projectors, Textbooks Computer Internet	<p>Demonstrate patient positioning in different oral x- ray investigation</p> <p>Demonstrate film placement and angulation procedure using the bisecting and paralleling techniques</p>	<p>Guide the students to:</p> <p>Demonstrate patient positioning in different oral x- ray investigation</p> <p>Demonstrate film placement and angulation procedure using</p>	<p>X-ray films</p> <p>Dental model</p> <p>Self-developing films</p> <p>X-ray dark room</p>

	using the bisecting and paralleling techniques	and paralleling techniques		Demonstrate x-ray film processing technique	the bisecting and paralleling techniques	Lead apron
	2.4 Explain exposure factors	Explain exposure factors			Demonstrate x-ray film processing technique	Viewing box
	2.5 Describe the features and care of darkroom	Explain the features and care of darkroom				Storage box
	2.6 Describe x-ray film processor and processing solutions	Explain x-ray film processor and processing solutions				
	2.7 Describe care and loading of film holder	Explain care and loading of film holder				
	2.8 Describe x-ray film processing technique	Explain x-ray film processing technique				
	2.9 Explain the process of oral x-ray films using the techniques in 2.8 above	Explain the process of oral x-ray films using the techniques in 2.8 above				
General Objective 3.0: Know the hazards associated with radiography and their protective measures						
9-12	3.1 Define radiation hazard	Explain radiation hazard	Textbook Journals Computer Internet Projector	Identify the various protective measures against radiation hazards	Guide students to: Identify the various protective	Lead apron Leaded wall Lead shield
	3.2 Explain the effect of radiation on living tissue	Explain the effect of radiation on living tissue				

	<p>3.3 Describe the various protective measures against radiation hazards:</p> <ul style="list-style-type: none"> • Lead apron • leaded wall • Lead shield 	<p>Explain the various protective measures against radiation hazards:</p> <ul style="list-style-type: none"> • Lead apron • leaded wall • Lead shield 			<p>measures against radiation hazards</p>	<p>PPE</p>
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EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Research Methodology in Dental Therapy	COURSE CODE: DTH 217	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 2
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 0
GOAL: This course is designed to equip students with the knowledge of conducting research using scientific and systematic approaches.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
1.0 Understand Scientific Literacy in Research Methodology 2.0 Understand Research in Dental Therapy 3.0 Understand Innovation and Research in Dental Therapy 4.0 Understand Report Writing in Research		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Research Methodology in Dental Therapy			COURSE CODE: DTH 217		CREDIT UNIT: 2	
			CONTACT HOURS: 2		THEORETICAL: 2	
YEAR: II SEMESTER: I			PRE-REQUISITE:		PRACTICAL: 0	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with the knowledge of conducting research using scientific and systematic approaches.						
General Objective 1.0: Understand Scientific Literacy in Research Methodology						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Define Research	Explain Research	Text books			
	1.2 Explain types of research	Explain types of research	Projector Computer Lecture notes Slides			
	1.3 Explain Research Methodology	Explain Research Methodology	Marker Whiteboard Eraser			
	1.4 Explain the importance of Research in dental therapy	Explain the importance of Research in dental therapy	Internet resources			
	1.5 Explain the scientific methods used to collect dental samples/data	Explain the scientific methods used to collect dental samples/data				

	1.6 Explain the scientific methods used to analyze dental samples/data	Explain the scientific methods used to dental forensic samples/data				
	1.7 Explain the scientific methods used to interpret dental samples/data	Explain the scientific methods used to interpret dental samples/data				
	1.8 Explain plagiarism in research	Explain plagiarism in research				
	1.9 Explain the importance of anti-plagiarism software	Explain the importance of anti-plagiarism software				
General Objective 2.0: Understand Research in Dental Therapy						
3-5	2.1 Define evidence-based practices	Explain evidence-based practices.	Text books Projector Computer			
	2.2 Explain accuracy in research-based techniques in dental therapy	Explain Accuracy in research-based techniques in dental therapy	Lecture notes Slides Marker Whiteboard Eraser			
	2.3 Explain ethics in research-based techniques in dental therapy	Explain ethics in research-based techniques in dental therapy	Journals Internet resources			

	2.4 Explain objectivity of dental sample analysis	Explain objectivity of dental sample analysis				
	2.5 Explain reducing subjective interpretations	Explain reducing subjective interpretations				
General Objective 3.0: Understand Innovation and Research in Dental therapy						
6-7	3.1 Explain new research methodologies in existing dental therapy	Explain new research methodologies in existing dental therapy	Textbooks Projector Computer Lecture notes			
	3.2 Explain how collaborative research can improve existing dental practices	Explain how collaborative research can improve existing dental practices	Slides Marker Whiteboard Eraser Journals			
	3.3 Explain innovation to advanced dental techniques and technology	Explain innovation to advance dental techniques and technology	Internet resources			
	3.4 Explain the integrity of evidence in dental therapy research	Explain the integrity of evidence in dental therapy research				
General Objective 4.0: Understand Report Writing in Research						
8-10	4.1 Define research report writing	Explain research report writing	Textbooks Projector Computer			
	4.2 Explain preliminary chapters in research	Explain preliminary chapters in research	Lecture notes Slides			

	<ul style="list-style-type: none"> • Abstract • Introduction • Literature review • Methodology • Results • Discussion • Recommendation and conclusion 	<ul style="list-style-type: none"> • Abstract • Introduction • Literature review • Methodology • Result • Discussion • Recommendation and conclusion 	<ul style="list-style-type: none"> Marker Whiteboard Eraser Journals Internet resources 			
	4.3 Explain referencing in research	Explain referencing in research				

EVALUATION: C.A: 30%
EXAMINATION: 70%

YEAR II

SEMESTER II

PROGRAMME: NATIONAL DIPOLMA DENTAL THERAPY		
COURSE: First Aid and Dental Emergencies	COURSE CODE: DTH 221	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: II SEMESTER: 1I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is design to equip the students with knowledge and skills of handling emergency cases		
GENERAL OBJECTIVES: On completion of this course the students should be able to: 1.0 Know the principles and practice of first aid 2.0 Know the management of various cases of emergencies. 3.0 Know the management of wound, bleeding and fracture. 4.0 Know the application of dressing and bandages. 5.0 Know the nervous system and unconsciousness.		

PROGRAMME: NATIONAL DIPOLMA DENTAL THERAPY						
COURSE: First Aid and Dental Emergencies		COURSE CODE: DTH 221		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: II SEMESTER: II		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFIFCATION: THEORETICAL AND PRACTICAL						
GOAL: This course is design to equip the students with knowledge and skills of handling emergency cases						
General Objective 1.0: Know the principles and practice of first aid						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Evaluation
1-3	1.1 Define first aid	Explain first aid	Journals Projector	Demonstrate procedures for taking vital signs	Guide students to:	Sphygmomano- meter
	1.2 Explain the aims of first aid	Explain the aims of first aid	Audio- Virtual aids Computer		Demonstrate procedures for taking vital signs	Clinical thermometer
	1.3 Explain the functions of first aid	Explain the functions of first aid	Internet Projector Charts			Stethoscope Wristwatch Charts Trolley Mannequin
	1.4 List the vital signs that determine the symptoms of emergency cases	Explain the vital signs that determine the symptoms of emergency cases				
	1.5 Describe the handling and transportation of injured person	Explain the handling and transportation of injured person				

General Objective 2.0: Know the management of cases emergencies.						
4-6	2.1 Describe the method to adopt in handling emergencies	Explain the method to adopt in handling emergencies	Journals Projector Audio- Virtual aids	Simulate the management of the following: <ul style="list-style-type: none"> • Shock 	Guide students to: Simulate the management of the following: <ul style="list-style-type: none"> • Shock 	Mannequin
	2.2 Define shock	Explain shock	Computer	<ul style="list-style-type: none"> • Fainting 	<ul style="list-style-type: none"> • Fainting 	Dental chair
	2.3 Explain the signs and symptoms of shock	Explain the signs and symptoms of shock	Internet Projector Charts	<ul style="list-style-type: none"> • Epileptic seizures • Asthmatic attack 	<ul style="list-style-type: none"> • Epileptic seizures 	Oxygen cylinder
	2.4 State the causes of shock	Explain the causes of shock			<ul style="list-style-type: none"> • Asthmatic attack 	Oxygen mask
	2.5 Describe the management of shock	Explain the management of shock				First aid box
	2.6 Explain the signs and symptoms of fainting	Explain the signs and symptoms of fainting				
	2.7 Explain the causes of fainting	Explain the causes of fainting				
	2.8 Describe the management of fainting	Explain the management of fainting				
	2.9 List the causes of Asphyxia	Explain the causes of Asphyxia				

	2.10 Explain epileptic seizures 2.11 Explain asthmatic attack	Explain epileptic seizures Explain asthmatic attack				
General Objective 3.0: Know the management of wound, bleeding and fracture.						
7-8	3.1 Define wounds 3.2 Describe types of wound 3.3 Describe the management of wound 3.4 Explain the signs and symptoms of bleeding 3.5 Describe different classes of bleeding 3.6 Describe the management of bleeding 3.7 Define fracture 3.8 Explain types of fracture	Explain wounds Explain types of wound Explain the management of wound Explain the signs and symptoms of bleeding Explain different classes of bleeding Explain the management of bleeding Explain fracture Explain types of fracture	Journals Projector Audio- Virtual aids Computer Internet Projector Charts	Demonstrate how to manage fractures	Guide students to: Demonstrate how to manage fractures	Tourniquet Bandages Gauze Cotton wool
General Objective 4.0: Know the application of dressing and bandages						
9-10	4.1 Explain the types of dressing	Explain the types of dressing	Journals Projector		Guide students to:	Bandage Gauze

	4.2 Describe the application of dressing	Explain the application of dressing	Audio-Virtual aids	Demonstrate the application of dressing	Demonstrate the application of dressing	Cotton Wool
	4.3 Explain the advantages of dressing	Explain the advantages of dressing	Computer			Plaster
	4.4 Define bandages	Explain bandages	Internet			Dressing Materials
	4.5 Explain the uses of bandages	Explain the uses of bandages	Projector			Hydrogel
	4.6 Describe the application of bandages	Explain the application of bandages	Charts			Hydrogen Peroxide
						Normal saline
General Objective 5.0: Know the nervous system and unconsciousness						
11-12	5.1 Define nervous system	Explain nervous system	Journals		Guide students to:	Mannequin
	5.2 Define unconsciousness	Explain unconsciousness	Projector	Simulation of the management of unconsciousness	Simulation of the management of unconsciousness	Dental chair
	5.3 State the causes of unconsciousness	Explain the causes of unconsciousness	Audio-Virtual aids			Vital signs apparatus
	5.4 Describe the management of unconsciousness	Explain the management of unconsciousness	Computer			
	5.5 Describe the stages of unconsciousness	Explain the stages of unconsciousness	Internet			
			Projector			
			Charts			

	5.6 Explain the signs and symptoms in unconsciousness	Explain the signs and symptoms in unconsciousness				
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EVALUATION: C.A: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Anatomy of Head and Neck	COURSE CODE: DTH 222	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with knowledge and skills of anatomy of the head and neck		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Know the bones of the skull 2.0 Know the mandible and maxilla. 3.0 Know the soft tissues of the oral cavity and the face 4.0 Understand the cranial nerves 5.0 Know the bone, muscles and blood vessels of the neck region 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Anatomy of Head and Neck			COURSE CODE: DTH 222	CREDIT UNIT: 2		
			CONTACT HOURS: 2	THEORETICAL: 1		
YEAR: II SEMESTER: II			PRE-REQUISITE:	PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with knowledge and skills of anatomy of the head and neck						
General Objective 1.0: Know the bones of the skull						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Describe the human skull	Explain the human skull	Whiteboard Marker Journals	Draw and label the human skull	Guide students to: Draw and label the human skull	Skull skeleton
	1.2 Explain the bones of the skull	Explain the various bones of the skull	Projector Computer Internet	Identify the bones of the skull	Identify the bones of the skull	Posters Audio-visual
	1.3 List the facial bones	Explain the facial bones	Charts	Identify facial bones	Identify facial bones	
	1.4 List the cranial bones	Explain the cranial bones		Draw the base of the skull.	Draw the base of the skull.	
	1.5 Describe the base of the skull	Explain the base of the skull		Identify the foramen	Identify the foramen	
	1.6 Describe the foramen of the human skull	Explain the foramen of a human skull				

General Objective 2.0: Know the mandible and maxilla

4-6	<p>2.1 Describe in details the shape of the mandible</p> <p>2.2 Describe the shape of the maxilla</p> <p>2.3 Describe the foramen and processes on the human jaw</p> <p>2.4 Describe foramen and processes:</p> <ul style="list-style-type: none"> • Infra- orbital foramen • Mental foramen • Mandibular foramen • Zygomatic process • Condyle process • Coronoid process <p>2.5 Explain blood and nerve supply to the face</p>	<p>Explain in details the shape of the mandible</p> <p>Explain the shape of the maxilla</p> <p>Explain the foramen and processes on the human jaw</p> <p>Explain foreman and processes:</p> <ul style="list-style-type: none"> • Infra- orbital foramen • Mental foramen • Mandibular foramen • Zygomatic process • Condyle process • Coronoid process <p>Explain blood and nerve supply to the face</p>	<p>Whiteboard</p> <p>Marker</p> <p>Journals</p> <p>Projector</p> <p>Computer</p> <p>Internet</p> <p>Atlas</p> <p>Charts</p>	<p>Identify the foramen and processes on the human jaw</p> <p>Draw and label a diagram if the blood and nerve supply to the face</p> <p>Identify:</p> <ul style="list-style-type: none"> • facial muscles • muscles of mastication <p>Identify TMJ</p> <p>Draw the TMJ</p> <p>Draw a well label diagram of mandible</p>	<p>Guide students to:</p> <p>Identify the foramen and processes on the human jaw</p> <p>Draw and label a diagram if the blood and nerve supply to the face</p> <p>Identify:</p> <ul style="list-style-type: none"> • facial muscles • muscles of mastication <p>Identify TMJ</p> <p>Draw the TMJ</p> <p>Draw a well label diagram of mandible</p>	<p>Posters</p> <p>Skulls</p> <p>Anatomical model</p>
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	<p>2.6 Describe the mandible</p>	<p>Explain the mandible</p>				
	<p>2.7 Describe temporomandibular joint (TMJ) of a human being</p>	<p>Explain temporomandibular joint (TMJ) of a human being</p>				
	<p>2.8 Describe the peculiarities of TMJ</p>	<p>Explain the peculiarities of TMJ</p>				
	<p>2.9 Describe the bones that make up TMJ</p>	<p>Explain the bones that make up TMJ</p>				
	<p>2.10 Describe the muscles that control the movement of TMJ:</p> <ul style="list-style-type: none"> • Masseter • Temporalis • Medial pterygoid • Lateral pterygoid 	<p>Explain the muscles that control the movement of TMJ:</p> <ul style="list-style-type: none"> • Masseter • Temporalis • Medial pterygoid • Lateral pterygoid 				

	<p>2.11 Explain the origin and insertion of muscles of mastication</p> <p>2.12 Describe the vessel that supplies blood to TMJ</p> <p>2.13 Describe the nerve supply to TMJ</p> <p>2.14 Describe the muscles of mastication</p> <p>2.15 Explain the functions of each muscles of mastication</p> <p>2.16 Explain the blood supply (artery) to each muscles in 2.14 above</p> <p>2.18 Describe the nerve supply to each muscle in</p>	<p>Explain the origin and insertion of muscles of mastication</p> <p>Explain the vessel that supplies blood to TMJ</p> <p>Explain the nerve supply to TMJ</p> <p>Explain the muscles of mastication</p> <p>Explain the functions of each muscles of mastication</p> <p>Explain the blood supply (artery) to each muscles in 2.14 above</p> <p>Explain the nerve supply to each muscle in 2.13 above</p>				
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	2.13 above					
General Objective 3.0: Know the soft tissues of the oral cavity and the face						
7-9	3.1 Describe the muscle of the lips	Explain the muscle of the lips	Whiteboard Marker Journals	Identify the facial muscles	Guide students to: Identify the facial muscles	Anatomical model of head and neck
	3.2 Describe the actions of the facial muscles	Explain the actions of the facial muscles	Projector Computer Internet Atlas Charts	Identify the taste buds on the tongue	Identify the taste buds on the tongue	Posters
	3.3 Describe the mucous membrane of the mouth	Explain the mucous membrane of the mouth		Draw a well labelled diagram of the tongue	Draw a well labelled diagram of the tongue	
	3.4 Describe the position and shape of the tongue	Explain the position and shape of the tongue		Identify the location of tonsils in the mouth	Identify the location of tonsils in the mouth	
	3.5 Describe the taste buds on the tongue	Explain the taste buds on the tongue				
	3.6 Differentiate the taste buds on the tongue	Explain the different taste buds on the tongue				
	3.7 Describe the types of tongue movements	Explain the types of tongue movements				

	<p>3.8 Explain the functions of the tongue</p> <p>3.9 Describe the soft and hard palate in the mouth</p> <p>3.10 Describe the location of tonsils in the mouth</p> <p>3.11 Describe the appearance of tonsils</p> <p>3.13 Explain the function of the tonsils</p> <p>3.14 Describe the gums (gingivae)</p> <p>3.15 Describe the types of gums (gingivae)</p> <p>3.16 Describe the features of a healthy gingivae</p>	<p>Explain the functions of the tongue</p> <p>Explain the soft and hard palate in the mouth</p> <p>Explain the location of tonsils in the mouth</p> <p>Explain the appearance of tonsils</p> <p>Explain the function of the tonsils</p> <p>Explain the gums (gingivae)</p> <p>Explain the types of gums (gingivae)</p> <p>Explain the features of a healthy gingivae</p>				
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General Objective 4.0: Understand the cranial nerves						
10-11	4.1 Define nerves 4.2 List the 12 cranial nerves 4.3 State the sensory, motor and mixed types of nerve 4.4 State the functions of the nerves in 4.2 above 4.5 Describe the nerve exit from the skull 4.6 Describe the functions of the nerves in 4.5 above 4.7. Describe the distribution of the trigeminal nerves and the facial nerve	Explain the nerves Explain the 12 cranial nerves Explain the sensory, motor and mixed types of nerve Explain the functions of the nerves in 4.2 above Explain the nerve exit from the skull Explain the functions of the nerves in 4.5 above Explain the distribution of the trigeminal nerves and the facial nerve	Whiteboard Marker Journals Projector Computer Internet Atlas Charts			
General Objective 5.0: Know the bones, muscles and blood vessels of the neck region						
12-13	5.1 Describe the bones of the : <ul style="list-style-type: none"> • Neck – atlas • Axis • Cervical vertebrae 	Explain the bones of the: <ul style="list-style-type: none"> • Neck – atlas • Axis • Cervical vertebrae 	Whiteboard Marker Journals Projector Computer Internet Atlas	Identify bones of the neck Draw and label bones of the neck	Guide students to: Identify bones of the neck Draw and label bones of the neck	Anatomical model of head and neck Posters

	<p>5.2 List the functions of the bones of the neck</p> <p>5.3 List the muscles of the:</p> <ul style="list-style-type: none"> • Neck-platysma • Sternocleidomastoid trapezius • Scalenes muscles • Pharyngens <p>5.4 Describe the function of each of the muscles listed in 5.3 above</p> <p>5.5 Describe the origin and insertion of the muscles of the neck</p> <p>5.6 Explain the nerve supply of muscles of the neck</p>	<p>Explain the functions of the bones of the neck</p> <p>Explain the muscles of the :</p> <ul style="list-style-type: none"> • Neck-platysma • Sternocleidomastoid trapezius • Scalenes muscles • Pharyngens <p>Explain the function of each of the muscles listed in 5.3 above</p> <p>Explain the origin and insertion of the muscles of the neck</p> <p>Explain the nerve supply of muscles of the neck</p>	Charts			
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EVALAUTION: C.A: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Principles of Sterilization	COURSE CODE: DTH 223	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to equip students with the knowledge and skills of Sterilization in Dental Health Care		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <ul style="list-style-type: none"> 1.0: Know Microbiology and Pathogen Transmission 2.0 Know the Principles and Methods of Sterilization 3.0 Know the Aseptic Technique and Infection Control 4.0 Understand Regulatory Standards on Infection Control 5.0 Understand the Ethical and Professional Responsibility in Infection Control 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Principles of Sterilization		COURSE CODE: DTH 223		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: II SEMESTER: II		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with the knowledge and skills of sterilization in dental health care						
THEORETICAL CONTENT				PRACTICAL CONTENT		
General Objective 1.0: Know Microbiology and Pathogen Transmission						
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define pathogens (bacteria, viruses, fungi) relevant to dental settings	Explain pathogens (bacteria, viruses, fungi) relevant to dental settings	Projector Internet Textbooks Journals Marker	Identify pathogens (bacteria, viruses, fungi) relevant to dental settings	Guide students to: Identify pathogens (bacteria, viruses, fungi) relevant to dental settings	Microscope Slides Culture media
	1.2 Describe common infections that can be transmitted through dental procedures	Explain the common infections that can be transmitted through dental procedures	Computer Whiteboard	Identify the common infections that can be transmitted through dental procedures	Identify the common infections that can be transmitted through dental procedures	
	1.3 Describe micro-organisms spread in clinical environments, including: <ul style="list-style-type: none"> • Airborne • Droplet • Contact transmission 	Explain micro-organisms spread in clinical environments, including: <ul style="list-style-type: none"> • Airborne • Droplet • Contact transmission 				

General Objective 2.0: Know the Principles and Methods of Sterilization								
4-6	2.1 Define Sterilization	Explain Sterilization	Projector	Identify cleaning, disinfection, and sterilization, materials and equipment	Guide Students to: Identify cleaning, disinfection, and sterilization, materials and equipment	Autoclave		
	2.2 Define Disinfection	Explain Disinfection	Internet			Reagents		
	2.3 Define Cleaning	Explain Cleaning	Textbooks			Dry heat oven		
	2.4 Outline the distinctions between cleaning, disinfection, and sterilization	Explain the distinctions between cleaning, disinfection, and sterilization	Journals			Water sterilizer		
	2.5 Describe methods of sterilization like: <ul style="list-style-type: none"> • Autoclaving • Chemical sterilization • Gas sterilization • Dry heat sterilization • Radiation • Water sterilization etc. 	Explain sterilization methods like: <ul style="list-style-type: none"> • Autoclaving • Chemical sterilization • Gas sterilization • Dry heat sterilization • Radiation • Water sterilization etc. 	Marker			Surgical gloves		
			2.6 State the mechanisms of each method in 2.5 above			Explain the mechanisms of each method in 2.5 above	Computer	Face mask
			2.7 State the advantages and limitations for different methods in 2.5 above			Explain the advantages and limitations for	Whiteboard	Soaps
				Demonstrate methods of sterilization	Demonstrate methods of sterilization	Scrubbing brushes		
						Stainless kidney dish		
						Sterilizer drum		

		different methods in 2.5 above				
General Objective 3.0: Know the Aseptic Technique and Infection Control						
7-9	<p>3.1 Define Aseptic Technique</p> <p>3.2 Define Infection Control</p> <p>3.3 Describe the Techniques to prevent contamination during dental procedures:</p> <ul style="list-style-type: none"> • Hand hygiene • PPE use <p>Proper handling of disposable materials and sharps etc.</p> <p>3.4 State the various methods of Handling Contaminated Instrument prior to sterilization:</p> <ul style="list-style-type: none"> • Sorting • Decontamination • Cleaning • Transportation 	<p>Explain Aseptic Technique</p> <p>Explain Infection Control</p> <p>Explain the Techniques to prevent contamination during dental procedures:</p> <ul style="list-style-type: none"> • Hand hygiene • PPE use • Proper handling of disposable materials and sharps etc. <p>Explain the various methods of Handling Contaminated Instrument prior to sterilization:</p> <ul style="list-style-type: none"> • Sorting • Decontamination • Cleaning • Transportation 	<p>Projector</p> <p>Internet</p> <p>Textbooks</p> <p>Journals</p> <p>Marker</p> <p>Computer</p> <p>Whiteboard</p>	<p>Demonstrate the Techniques to prevent contamination</p> <p>Demonstrate methods of Handling Contaminated Instruments.</p> <p>Identify methods of Environmental Hygiene.</p>	<p>Guide students to:</p> <p>Demonstrate the Techniques to prevent contamination</p> <p>Demonstrate methods of Handling Contaminated Instruments.</p> <p>Identify methods of Environmental Hygiene</p>	<p>PPE</p> <p>Disposal containers</p> <p>Sterilization Liquids</p> <p>Safety box</p> <p>Scrubbing Brushes</p> <p>Trolley</p> <p>Kidney dish</p>

	3.5 State the methods of Environmental Hygiene in dental practice	Explain the methods of Environmental Hygiene in dental practice				
General Objective 4.0: Understand Regulatory Standards on Infection Control						
10-11	4.1 Describe Regulatory Guidelines on infection control	Explain Regulatory Guidelines on infection control	Projector Internet Textbooks Journals			
	4.2 State the regulations from organizations like the CDC, WHO, OSHA, and the ADA	Explain the regulations from organizations like the CDC, WHO, OSHA, and the ADA	Marker Computer Whiteboard			
	4.3 Describe record-keeping for sterilization processes, equipment maintenance logs, and patient safety protocols	Explain record-keeping for sterilization processes, equipment maintenance logs, and patient safety protocols				
General Objective 5.0: Understand the Ethical and Professional Responsibility in Infection Control						
12-13	5.1 Define Patient Safety in Infection Control	Explain Patient Safety in Infection Control.	Projector Internet Textbooks Journals			
	5.2 Explain the importance of strict adherence to infection control protocols as a professional and ethical duty to patients	Explain the importance of strict adherence to infection control protocols as a professional and ethical duty to patients	Marker Computer Whiteboard			

	5.3 Define Risk Assessment	Explain Risk Assessment				
	5.4 Explain the Methods for identifying and managing potential infection risks in dental procedures and settings	Explain the Methods for identifying and managing potential infection risks in dental procedures and settings				

EVALUATION: CA: 40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Dental Materials	COURSE CODE: DTH 224	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 2
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to equip the students with the knowledge and skills of dental materials		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0: Know dental materials and their composition 2.0 Understand the chemical and physical properties of dental materials 3.0 Know the classification of dental materials 4.0 Know the uses of dental materials 5.0 Know the manipulation of dental materials 		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Dental Materials		COURSE CODE: DTH 224		CREDIT UNIT: 3		
		CONTACT HOURS: 3		THEORETICAL: 2		
YEAR: II SEMESTER: II		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip the students with the knowledge and skills of dental materials						
General Objective 1.0: Know dental materials and their composition						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define dental materials 1.2 Explain the common dental materials: <ul style="list-style-type: none"> • Zinc Oxide Eugenol • Alginate • Local Anesthetics • Fluoride Gel • Sodium Fluoride Paste • Prophylaxis Paste • Gold • Dental Cements • Fissure Sealent • POP • Stone – Wax 	Explain dental materials Explain the common dental Materials: <ul style="list-style-type: none"> • Zinc Oxide Eugenol • Alginate • Local Anesthetics. • Fluoride Gel • Sodium Fluoride Paste • Prophylaxis Paste • Gold 	Projector Internet Textbooks Journals Marker Atlas Computer Whiteboard	Identify the common dental materials	Guide students to: Identify the common dental materials	Zinc Oxide Eugenol Alginate Local Anesthetics Fluoride Gel Sodium Fluoride Paste Prophylaxis Paste Gold

	<ul style="list-style-type: none"> • Gutter Purcha. • Polymer-Monomer • Poly Sulphide Rubber • Agar - Agar (Hydrocolloid) • Mercury (White) <p>1.3 Explain the composition of each of the dental materials listed in 1.2 above</p> <p>1.4 Explain how the components of the dental materials affect their physical properties</p> <p>1.5 Describe the stress-strain relationship in dental materials</p> <p>1.6 Describe the procedures of handling</p>	<ul style="list-style-type: none"> • Dental Cements • Fissure Sealent. • POP • Stone – Wax • Gutter Purcha. • Polymer-Monomer • Poly Sulphide Rubber • Agar - Agar (Hydrocolloid) • Mercury (White) <p>Explain the composition of each of the dental materials listed in 1.2 above</p> <p>Explain how the components of the dental materials affect their physical properties</p> <p>Explain the stress-strain relationship in dental materials</p>				<p>Dental Cements</p> <p>Fissure Sealent</p> <p>POP</p> <p>Stone – Wax</p> <p>Gutter Purcha.</p> <p>Polymer-Monomer</p> <p>Poly Sulphide Rubber</p> <p>Agar - Agar (Hydrocolloid)</p> <p>Mercury (White)</p>
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	<p>the various dental materials</p> <p>1.7 Define fluoride</p> <p>1.8 List the types of fluorides</p> <p>1.9 State the uses of each type of fluoride</p> <p>1.10 Define Prohylaxix paste</p> <p>1.11 Explain the types of prohylaxix paste</p> <p>1.12 Describe the application of prohylaxix paste</p>	<p>Explain the procedures of handling the various dental materials</p> <p>Explain fluoride</p> <p>List the types of fluorides</p> <p>Explain the uses of each type of fluoride</p> <p>Explain Prohylaxix paste</p> <p>Explain the types of prohylaxix paste</p> <p>Explain the application of prohylaxix paste</p>				
General Objective 2.0 Understand the chemical and physical properties of dental materials						
4-5	<p>2.1 List the chemical properties of dental Materials:</p> <ul style="list-style-type: none"> • Solubility • Corrosion resistance etc. 	<p>Explain the chemical properties of dental Materials:</p> <ul style="list-style-type: none"> • Solubility • Corrosion resistance etc. 	<p>Projector</p> <p>Internet</p> <p>Textbooks</p> <p>Journals</p> <p>Marker</p> <p>Atlas</p>			

	<p>2.2 List the physical properties of dental materials listed in 1.2. above:</p> <ul style="list-style-type: none"> • Rigidity • Elasticity • Abrasion resistant • Corrosion resistant 	<p>List the physical properties of dental materials listed in 1.2. above:</p> <ul style="list-style-type: none"> • Rigidity • Elasticity • Abrasion resistant • Corrosion resistant 	Computer Whiteboard			
	<p>2.3 Explain the properties of the materials in 1.2 above that make them suitable as dental materials</p>	<p>Explain the properties of the materials in 1.2 above that make them suitable as dental materials</p>				
General Objective 3.0: Know the classification of dental materials						
6-8	<p>3.1 Explain dental materials according to the following grouping:</p> <ul style="list-style-type: none"> • Restorative materials (conservative) • Preventive materials • Prosthetic materials 	<p>Explain dental materials according to the following grouping::</p> <ul style="list-style-type: none"> • Restorative materials (conservative) • Preventive materials • Prosthetic materials 	<p>Projector Internet Textbooks Journals Marker Atlas Computer Whiteboard</p>	Identify soft paste and hard paste	Guide students to: Identify soft paste and hard paste	<p>Restorative materials (conservative) Preventive materials Prosthetic materials</p>

	<p>3.2 Explain the classification of dental materials according to their physical properties:</p> <ul style="list-style-type: none"> • Metallic • Non-metallic 	<p>Explain the classification of dental materials according to their physical properties:</p> <ul style="list-style-type: none"> • Metallic • Non-metallic 				
	<p>3.3 Define restorative materials</p>	<p>Explain restorative materials</p>				
	<p>3.4 Define preventive materials</p>	<p>Explain preventive materials</p>				
	<p>3.5 Define prosthetic materials</p>	<p>Explain prosthetic materials</p>				
	<p>3.6 Describe impression compounds</p>	<p>Explain impression compounds</p>				
	<p>3.7 State why zinc oxide eugenol is not used as an impression material</p>	<p>Explain why zinc oxide eugenol is not used as an impression material</p>				
	<p>3.8 State conditions under which polysulfide rubbers are used as impression materials</p>	<p>Explain conditions under which polysulfide rubbers</p>				

		are used as impression materials				
	3.9 Define hydrocolloid	Explain hydrocolloid				
	3.10 Explain reversible hydrocolloid	Explain reversible hydrocolloid				
	3.11 Explain irreversible hydrocolloid	Explain irreversible hydrocolloid				
	3.12 Explain the comparison between reversible and irreversible hydrocolloid in terms of use and final product	Explain the comparison between reversible and irreversible hydrocolloid in terms of use and final product				
	3.13 Describe the methods of heating an impression compound	Explain the methods of heating an impression compound				
	3.14 Explain the comparison between the different methods of heating impression compound	Explain the comparison between the different methods of heating impression compound				
	3.15 Define Heat impression colloids	Explain Heat impression colloids				

	3.16 Explain soft paste and hard paste	Explain soft paste and hard paste				
	3.17 Differentiate between a hard paste and soft paste	Explain the differences between a hard paste and soft paste				

General Objective 4.0: Know the uses of dental materials

9-11	<p>4.1 Describe the uses of dental materials</p> <p>4.2 Explain materials used for the following processes:</p> <ul style="list-style-type: none"> • Impression taking • Casting of models • Dental prosthetics <p>4.3 Explain the application of materials listed in 1.2 above for various purposes</p>	<p>Explain the uses of dental materials</p> <p>Explain materials used for the following processes:</p> <ul style="list-style-type: none"> • Impression taking • Casting of models • Dental prosthetics <p>Explain the application of materials listed in 1.2 above for various purposes</p>	<p>Projector</p> <p>Internet</p> <p>Textbooks</p> <p>Journals</p> <p>Marker</p> <p>Atlas</p> <p>Computer</p> <p>Whiteboard</p>	<p>Identify materials used for the following processes</p> <ul style="list-style-type: none"> • Impression taking • Casting of models • Dental prosthetics <p>Demonstrate the application of the above materials for various purposes</p>	<p>Guide students to:</p> <p>Identify materials used for the following processes</p> <ul style="list-style-type: none"> • Impression taking • Casting of models • Dental prosthetics <p>Demonstrate the application of the above materials for various purposes</p>	<p>Impression taking</p> <p>Casting of models</p> <p>Dental prosthetics</p>
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General Objective 5.0: Know the manipulation of dental materials

12-13	<p>5.1 Explain the concept of manipulation of dental materials</p> <p>5.2 Define setting time</p> <p>5.3 State the setting time of the various dental materials</p> <p>5.4 State the disadvantage of setting time of dental materials</p>	<p>Explain the concept of manipulation of dental materials</p> <p>Explain setting time</p> <p>Explain the setting time of the various dental materials</p> <p>Explain the disadvantage of setting time of dental materials</p>	<p>Projector</p> <p>Internet</p> <p>Textbooks</p> <p>Journals</p> <p>Marker</p> <p>Atlas</p> <p>Computer</p> <p>Whiteboard</p>	<p>Demonstrate manipulation of dental materials</p>	<p>Guide students to:</p> <p>Demonstrate manipulation of dental materials</p>	
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EVALUATION: C.A:

40%

EXAMINATION: 60%

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Introduction to Clinical Practice	COURSE CODE: DTH 225	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 2
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 0
GOAL: This course is designed to provide the students with knowledge of clinical practice		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <p>1.0 Understand the sanitation of the working environment</p> <p>2.0 Understand the procedures for clinical examination and assessment of the patient</p> <p>3.0 Understand the use of sterile instruments and aseptic techniques</p> <p>4.0 Understand the technique of removing deposits from surfaces of the teeth.</p> <p>5.0 Understand post-operative care of patients.</p>		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Introduction to Clinical Practice I			COURSE CODE: DTH 225		CREDIT UNIT: 2	
			CONTACT HOURS: 2		THEORETICAL: 2	
YEAR: II SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 0	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide the students with knowledge of clinical practice						
General Objective 1.0 Understand the sanitation of the working environment						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Define dental hygiene	Explain dental hygiene	Projector Internet Textbooks			
	1.2 Explain dental working environment	Explain dental working environment	Journals Marker Atlas			
	1.3 Describe standard of personal hygiene	Explain standard of personal hygiene	Computer Whiteboard			
	1.4 Describe cleaning of the dental working environments e.g.: <ul style="list-style-type: none"> • Scrubbing the floor • Ventilation • Dusting • Beautification etc. 	Explain cleaning of the dental working environments e.g.: <ul style="list-style-type: none"> • Scrubbing the floor • Ventilation • Dusting • Beautification etc. 				
	1.4 Describe disinfection of working materials:					

	<ul style="list-style-type: none"> • Wiping the bracket table using alcoholic sponge handpiece, • Spittum, • Kidney dish • Bristle • Rubber cup, etc. 	<p>Explain disinfection of working materials</p> <ul style="list-style-type: none"> • Wiping the bracket table using alcoholic sponge handpiece, • Spittum, • Kidney dish • Bristle • Rubber cup, etc.. 				
General Objective 2.0 Understand the procedures for clinical examination and assessment of the patients						
3-4	<p>2.1 Define Positioning of patient and self</p> <p>2.2 Explain how to record and interpret medical history</p> <p>2.3 Explain how to record and interpret dental history</p> <p>2.4 Describe how to carry out extra-oral examination</p>	<p>Explain the positioning of the patient and self</p> <p>Explain how to record and interpret medical history</p> <p>Explain how to record and interpret dental history</p> <p>Explain how to carry out extra-oral examination</p>	<p>Projector</p> <p>Internet</p> <p>Textbooks</p> <p>Journals</p> <p>Marker</p> <p>Atlas</p> <p>Computer</p> <p>Whiteboard</p>			

	2.5 Explain how to Interpret vital signs in patients	Explain how to Interpret vital signs in patients				
	2.6 Describe dental charting	Explain how to carry out dental charting				
	2.5 Describe procedures to minimise anxiety and discomfort in a patient	Explain procedures to minimise anxiety and discomfort in a patient				
	2.6 Describe treatment procedures plan	Explain treatment procedures plan				
General Objective 3.0: Understand the uses of sterile instruments and aseptic techniques						
5-6	3.1 Describe how to sterilise the instruments required for clinical practice	Explain how to sterilise the instruments required for clinical practice	Projector Internet Textbooks Journals Marker Atlas Computer			
	3.2 Describe aseptic technique in the clinic	Explain aseptic technique in the clinic	Whiteboard			
	3.3 Describe how to layout sterile instruments for use	Explain how to Lay-out sterile instruments for use				
	3.4 Explain storage sterile instruments	Explain how to store sterile instruments				

General Objective 4.0: Understand the technique of removing deposits from surfaces of the teeth

7-8	<p>4.1 List instruments for removal of deposits from the teeth</p> <p>4.2 Explain the procedure for removal of calculus from the teeth</p> <p>4.3 Explain the procedure for removal of stains and plaque from the teeth</p> <p>4.5 Explain application of the following during removal of deposits:</p> <ul style="list-style-type: none"> • Grasp • Motion • Fulcrum 	<p>Explain instruments for removal of deposits from the teeth</p> <p>Explain the procedure for removal of calculus from the teeth</p> <p>Explain the procedure for removal of stains and plaque from the teeth</p> <p>Explain application of the following during removal of deposits:</p> <ul style="list-style-type: none"> • Grasp • Motion • Fulcrum 	<p>Projector</p> <p>Internet</p> <p>Textbooks</p> <p>Journals</p> <p>Marker</p> <p>Atlas</p> <p>Computer</p> <p>Whiteboard</p>			
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General Objective 5.0: Understand post-operative care of patients

9-10	<p>5.1 Explain tooth brushing method</p> <p>5.2 Explain other methods of cleaning the mouth e.g. using of chewing sticks, charcoal, etc.</p> <p>5.3 Explain dietary counselling to patients</p>	<p>Explain tooth brushing methods</p> <p>Explain other methods of cleaning the mouth e.g. using of chewing sticks, charcoal, etc.</p> <p>Explain dietary counselling to patients</p>	<p>Projector</p> <p>Internet</p> <p>Textbooks</p> <p>Journals</p> <p>Marker</p> <p>Atlas</p> <p>Computer</p> <p>Whiteboard</p>			
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EVALUATION: C.A: 30%
EXAMINATION: 70%

PRACTICAL MANUAL FOR ND DENTAL THERAPY

Tooth Morphology and Tooth Carving I DTH 111	<ol style="list-style-type: none">1. Identify the surfaces of the teeth2. Draw the structure of a tooth3. Identify the types of human dentition4. Demonstrate the difference between the two types of dentitions in terms of numbers, size, shape, colour and structures.5. Identify each tooth in the deciduous and permanent human dentitions.6. Demonstrate each of the tooth identified above7. Explain the functions of each tooth.8. Draw and label each tooth9. Demonstrate the types of occlusions10. Demonstrate types of malocclusions
Human Anatomy and Physiology I DTH 112	<ol style="list-style-type: none">1. Identify the external parts of the human body.2. Identify the human body curvatures3. Demonstrate body movements4. Identify the components of human cell5. Draw a well labelled diagram of the human cell and its components (constituents)6. Identify a typical human cell under the microscope.7. Identify and draw the major bones in each group in 4.3 above8. Draw and label the main bones of the skeletal system9. Identify and draw the different types of joints in the skeletal system.10. Draw and label the major joints of the skeletal system11. Draw and label the different types of muscles

	12. Draw and label a human heart
Dental Therapy Instrumentation I DTH 121	<ol style="list-style-type: none"> 1. Identify dental therapy instruments 2. Draw and label dental therapy instruments 3. Identify the hand instruments required for the carving 4. Identify the hand instruments required for phantom head 5. Identify the hand instruments required for the oral examination of a patient. 6. Sort the instruments identified above
Oral Physiology DTH 122	<ol style="list-style-type: none"> 1. Identify: <ul style="list-style-type: none"> • Soft deposit • Hard deposit • Dental stains 2. Identify location of salivary glands 3. Draw salivary glands 4. Test for taste sensation in the mouth 5. Draw and label the tongue indicating taste buds
Care and Maintenance of Dental Equipment/Instruments DTH 123	<ol style="list-style-type: none"> 1. Identify basic equipment and instruments used in dental surgery 2. Demonstrate the use of the equipment identified above 3. Demonstrate the working mechanism of the equipment identified above 4. Demonstrate the calibration of dental surgery equipment and instruments 5. Adjust the calibration of dental surgery equipment and instrument 6. Demonstrate the simple maintenance of the hand tools

	<ol style="list-style-type: none"> 7. Identify the various items required for sharpening of hand instruments 8. Demonstrate how to Sharpen various dental instruments 9. Demonstrating how to clean and sterilize hand instruments 10. Demonstrate how to operate the equipment needed in the dental surgery 11. Demonstrate the simple maintenance of the equipment in dental surgery
<p>Human Anatomy and Physiology II DTH 125</p>	<ol style="list-style-type: none"> 1. Draw and label the respiratory system 2. Identify various organs of respiration 3. Draw and label the alimentary canal. 4. Draw and label the mouth, showing the oral part of the pharynx. 5. Draw and label urogenital system 6. Draw and label the glands 7. Draw and label a typical nerve cell 8. Examine and draw sections from various parts of the nervous system 9. Draw sections from various parts of the nervous system
<p>Tooth Morphology and Tooth Carving II DTH 126</p>	<ol style="list-style-type: none"> 1. Identify Carving Instruments such as carvers, calliper, as well as materials like wax, stone, and plaster. 2. Demonstrate the Proper Handling and Maintenance of Instruments. 3. Demonstrate the Material Preparation and Selection. 4. Demonstrate the anatomical accuracy in Carving. 5. Demonstrate aesthetic and functional detailing. 6. Demonstrate the difference between deciduous and permanent teeth based on their unique anatomical features, size, shape, and eruption patterns.

	<ol style="list-style-type: none"> 7. Identify specific characteristics of each type of tooth within both dentitions (incisors, canines, molars) to understand their functional and developmental roles. 8. Describe Carving and Replicating Tooth Anatomy 9. Demonstrate the ability to visualize and replicate the dimensions of each tooth in proportion to its natural size, ensuring accurate scaling. 10. Demonstrate the use of calipers, rulers, and other dental measurement tools to ensure that carved teeth match the desired dimensions and maintain anatomical accuracy. 11. Demonstrate measurement techniques to maintain scale across multiple carvings, understanding the importance of symmetry and proportionality. 12. Replication of Tooth. 13. Demonstrate the Tooth anatomy at Various Scales 14. Identify key occlusal landmarks, such as cusps, fossae, grooves, and ridges, on each type of tooth (e.g., molars, premolars) and understand their role in occlusion. 15. Demonstrate carving of occlusal surfaces that accurately reflect natural occlusal relationships, such as aligning cusps, grooves, and ridges to ensure realistic contact points. 16. Demonstrate carving of occlusal anatomy that allows for smooth articulation without interference, simulating natural bite and movement. 17. Demonstrate the Application of Occlusal Concepts to Clinical Scenarios
<p>Oral Hygiene DTH 127</p>	<ol style="list-style-type: none"> 1. Identify types of toothbrushes 2. Identify the plane of tooth brushing using dental model

	<ol style="list-style-type: none"> 3. Identify the properties of natural and nylon bristles for toothbrushes. e.g.: <ul style="list-style-type: none"> • Hard, • Medium • Soft 4. Demonstrate how to care for tooth brush 5. Identify the composition of dentifrices e.g.: <ul style="list-style-type: none"> • Abrasive Solvent • Detergent • Fillers • Flavouring • Chemical Additives Etc. 6. Create a dentifrice albu 7. Demonstrate the various tooth brushing methods 8. Identify areas that require emphasis during tooth brushing 9. Create a tooth brush album 10. Identify the traditional method of tooth cleaning 11. Create an album for types of chewing sticks 12. Identify inter-dental teeth cleaning agents 13. Demonstrate how to use inter-dental teeth cleaning agents 14. Identify the device used for oral irrigation 15. Demonstrate mouth rinsing and oral irrigation. 16. Identify mouth wash agents 17. Identify disclosing agents 18. Identify common oral hygiene related problems
Oral Anatomy DTH 211	<ol style="list-style-type: none"> 1. Draw the stages of the development of facial structure 2. Draw the transverse section of a tooth

	<ol style="list-style-type: none"> 3. Draw the stages of the embryonic development of oral structure 4. Draw the vertical/cross section of the foetus formation from the drawing 5. Observe the oral structures 6. Draw the vertical/cross section of the foetus formation 7. Draw the stages of tooth formation 8. Draw the cross-sectional tissues of the teeth 9. Observe the various stages in 2.1, 2.4, 2.5 and 2.6 10. Draw and label: <ul style="list-style-type: none"> • Oral Cavity • Mandible • Maxillae • A Tooth • A tooth in cross-section 11. Lateral view of the skull showing the salivary glands
<p>Phantom Head DTH 212</p>	<ol style="list-style-type: none"> 1. Demonstrate components of the phantom head 2. Identify the various types of instrument used in periodontal debridement 3. Demonstrate instrument grasps 4. Demonstrate angulation in dental Instrumentation 5. Demonstrate the Difference between angulation in scaling and root planning procedures 6. Demonstrate the process of Removing deposits from teeth applying angulation 7. Illustrate Preparation of the phantom head for practical 8. Demonstrate how to Fix and adjust the phantom head to the workbench for easy operation

	<ol style="list-style-type: none"> 9. Demonstrate Sort and set the instruments required for the scaling and polishing procedure 10. Illustrate the Selection of the correct instruments for removing deposits on the teeth of the phantom head 11. Demonstrate the Removal of deposits from the teeth of the phantom head, using the correct instruments above, at the right position, with the correct grasps and motions 12. Demonstrate Selection of the correct instruments for polishing the teeth of the phantom head. 13. Demonstrate Polishing teeth of the phantom head after successful removal of deposits using the instruments above 14. Demonstrate the application precaution to prevent injuries to the soft and hard tissue during scaling and polishing.
<p>Oral Health Education DTH 213</p>	<ol style="list-style-type: none"> 1. Identify material used for cleaning the mouths 2. Identify the various types of toothbrushes 3. Demonstrate the various tooth brushing techniques 4. Demonstrate the uses of wood point and dental floss 5. Identify the various types of chewing sticks 6. Demonstrate the uses of wood point and dental floss 7. Demonstrate the uses of the chewing stick 8. Identify self-cleansings fruits
<p>Dental Instrumentation I DTH 215</p>	<ol style="list-style-type: none"> 1. Identify the appropriate instruments for examination of oral cavity 2. Determine how to use probe to determine the depth of periodontal pocket 3. Determine the presence of tooth decay using the caries probe 4. Transfer material to and from the oral cavity using tweezers 5. Identify the instruments for gross scaling 6. Set the instruments ready for use

	<ol style="list-style-type: none"> 7. Apply the jacquettes 1,2 and 3 8. Apply the hoe scalers 9. Apply the chisel scalers 10. Apply the gross excavators 11. Apply the other instruments from gross scaling 12. Identify instruments for fine scaling 13. Set the instruments ready for use 14. Apply the drury scalers 15. Apply the fine excavator 16. Apply the fine chisel 17. Apply the curettes 18. Apply the sickles 19. Apply other fine scaling instruments 20. Identify equipment for tooth polishing 21. Identify instruments for tooth polishing 22. Attach the instruments to their appropriate equipment 23. Carryout tooth Polishing
<p>Dental Radiography I DTH 216</p>	<ol style="list-style-type: none"> 1. Demonstrate patient positioning in different oral x- ray investigation. 2. Demonstrate film placement and angulation procedure using the bisecting and paralleling techniques 3. Identify the various protective measures against radiation hazards
<p>First Aid and Dental Emergencies DTH 221</p>	<ol style="list-style-type: none"> 1. Demonstrate procedures for taking vital signs 2. Simulate the management of the following: <ul style="list-style-type: none"> • Shock • Fainting • Epileptic seizures • Asthmatic attack

	<ol style="list-style-type: none"> 3. Demonstrate how to manage fractures 4. Demonstrate the application of dressing 5. Simulation of the management of unconsciousness
Anatomy of Head and Neck DTH 222	<ol style="list-style-type: none"> 1. Draw and label the human skull 2. Identify the bones of the skull 3. Identify facial bones, 4. Draw the base of the skull. 5. Identify the foramen 6. Identify the foramen and processes on the human jaw 7. Draw well labelled diagram blood and nerve supply to the face. 8. Identify: <ul style="list-style-type: none"> • Facial Muscles • Muscles of Mastication 9. Identify TMJ 10. Draw the TMJ 11. Draw a well label diagram of mandible 12. Identify the facial muscles 13. Identify the taste buds on the tongue 14. Draw a well labelled diagram of the tongue 15. Identify the location of tonsils in the mouth 16. Identify bones of the neck 17. Draw and label bones of the neck
Principles of Sterilization DTH 223	<ol style="list-style-type: none"> 1. Identify pathogens (bacteria, viruses, fungi) relevant to dental settings 2. Identify the common infections that can be transmitted through dental procedures 3. Identify cleaning, disinfection, and sterilization, materials and equipment

	<ol style="list-style-type: none"> 4. Demonstrate methods of sterilization 5. Demonstrate the Techniques to prevent contamination 6. Demonstrate methods of Handling Contaminated Instruments. 7. Identify methods of Environmental Hygiene.
Dental Materials DTH 224	<ol style="list-style-type: none"> 1. Identify the common dental materials. 2. Identify soft paste and hard paste 3. Identify materials used for the following processes 4. impression taking 5. casting of models 6. dental prost 7. Demonstrate the application of dental materials 8. Demonstrate manipulation of dental materials



NATIONAL BOARD FOR TECHNICAL EDUCATION

HIGHER NATIONAL DIPLOMA (HND)

DENTAL THERAPY

CURRICULUM AND COURSE SPECIFICATIONS

PLOT B, BIDA ROAD, P.M.B.2239, KADUNA –NIGERIA

OCTOBER, 2024

FOREWARD

With a growing demand for oral health services, the need for a well-trained dental technologist has become increasingly apparent.

The Higher National Diploma in Dental Therapy curriculum is designed to produce skilled dental technologists who can contribute significantly to oral healthcare in Nigeria.

This curriculum, developed to meet the evolving needs of the dental profession, provides a solid foundation in dental and clinical practice. It is designed to equip students with the necessary knowledge and skills to provide quality dental care,

I would like to express my sincere gratitude to Dental Therapist Registration Board of Nigeria (DThRBN) who sponsored and contributed to the review of this non-terminal curriculum. Their expertise and dedication have been instrumental in shaping this curriculum

I hope that this curriculum will be implemented effectively to produce competent dental technologists who can make a positive impact on oral health in Nigeria.

Prof. Idris M. Bugaje,
EXECUTIVE SECRETARY,
NBTE Kaduna.

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GENERAL INFORMATION

1.0 TITLE OF THE PROGRAMME: The title of the programme is **Higher National Diploma Dental Therapy**

2.0 GOAL AND OBJECTIVES OF THE PROGRAMME

2.1 Goal: The Higher National Diploma (HND) programme in Dental Therapy is designed to produce dental therapy (technologist) who will be capable of applying practical skills and knowledge in complementing the role of dentists in dental care programmes.

2.2 Objectives: At the end of the programme, the student should be able to:

1. Manage medical emergencies in the dental clinic
2. Manage and administer drugs in dental practice.
3. Manage common oral diseases in primary health care centres.
4. Manage periodontal diseases.
5. Manage patients with dental anomalies
6. Carryout radiographic techniques and production
7. Provide patient care in hospitals
8. Carryout Dental Therapy clinical practice
9. Provide Dental anaesthetic care
10. Use advance dental instruments and equipment
11. Manage diseases of the oral cavity.
12. Provide Dental diagnosis and treatment plan
13. Diagnose and manage dental issues in older adults
14. Provide dental care to patients with special needs.
15. Apply digital dentistry.
16. Provide oral health education and promotion.
17. Carryout dental office management.
18. Manage dental caries
19. Apply ethical principles and professionalism in dental practice
20. Recognize/Control communicable and non-communicable diseases

3.0 ENTRY REQUIREMENTS:

The general entry requirements for the HND in Dental Therapy are:

- a. Candidates for the programme shall possess minimum of five (5) credits passes in NABTEB/WAEC/GCE/SSCE/NECO or its equivalents in not more than two sittings to include: English Language, Mathematics, and any three from Biology/Health Science, Physics and Chemistry.
- b. ND in Dental Therapy with minimum of lower credit.

4.0 STAFFING REQUIREMENT

4.1 Headship of the Department:

The HOD should not be lower than a Senior Lecturer in rank. He should be qualified in the discipline/field of study and have post-qualification cognate experiences in industry, teaching and educational management to guarantee to the Board that the department is being efficiently and effectively run. He should possess at least a good HND /B.Sc Degree with relevant Postgraduate Degree and also be a registered Dental Therapist with the Dental Therapists' Registration Board of Nigeria.

4.2 Core Teaching Staff:

At the point of mounting the programme, there should be a minimum of six (6) Lecturers from Lecture II and above with B.Sc. /BDTH/ HND in Dental Therapy, BDS and Higher Degrees in the following areas:

- Dental Therapy
- Public Health
- Social Work
- Health Education

4.3 Technical Staff:

These are technically qualified staff not involved in direct lecturing/instructing, but who provide vital and indispensable services in all facilities used in the implementation of the programme. They possess minimum of Diploma in Dental Surgery Technicians and HND in Dental Therapy

5.0 CAREER AND ACADEMIC PROSPECTS

5.1 Career Prospects

Holders of the HND can work in the following establishments/organizations:

- Hospital
- School
- Dental Clinics
- Industries
- Research Institutes
- Spas
- NGOs

6.0 DURATION

The duration of the programme is two academic sessions consisting of four semesters of 17 weeks each. (15 weeks academic activities and 2 weeks for Registration & Examinations).

7.0 CURRICULUM

7.1 The curriculum of the HND programme consists of four main components. These are:

- i. General Studies/Education
- ii. Foundation Courses
- iii. Core Courses
- iv. Students' Industrial Work Experience Scheme (SIWES)

7.2 The General Education component shall account for not more than 15% of total contact hours for the programme.

7.3 Foundation Courses: include courses in English Language, Mathematics, and three other subjects, from the sciences humanities or mixtures of both. The number of hours will vary with the programme and may account for about 10-15% of the total contact hours.

7.4 Professional Courses: are courses, which give the student the theory and practical skills needed to practice in his/her field of specialization at the technical level. These may account for between 60-70% of the total contact hours of the programme.

7.5 Students' Industrial Work Experience Scheme (SIWES) shall take place during the long vacation following the end of the second semester of the first year. See details on SIWES.

8.0 CURRICULUM STRUCTURE

The structure of the HND programme consists of four semesters of Classroom, Laboratory, Field Trips and Workshop activities in the college and Students' Industrial Work Experience Scheme at the end of second semester of the first year is not compulsory.

Each semester shall be of 17 weeks duration made up as follows: 15 contact weeks of teaching, lecture recitation and practical exercises, etc and 2 weeks for tests, quizzes, examinations and registration.

9.0 ACCREDITATION

The National Board for Technical Education shall accredit the programme before the diplomates can be awarded the Higher National Diploma certificates. Details about the process of accrediting the programme for the award of the National Diploma are available from the office of the Executive Secretary, National Board for Technical Education, Plot "B", Bida Road, P.M.B. 2239, Kaduna, Nigeria.

10.0 CONDITION FOR AWARD OF HIGHER NATIONAL DIPLOMA

10.1 Conditions for the award of Higher National Diploma include the following:

- a. Satisfactory performance in all prescribed course work which may include class work, tests, quizzes
- b. Pre-internship (competency) examination by Dental Therapists' Registration Board of Nigeria (DThRBN)
- c. Satisfactory performance at one year internship programme
- d. Satisfactory performance at all semester examinations

- e. Satisfactory completion of final year project work
- f. Candidates should have completed a minimum of between 93 to 103 semester credit units.

10.2 Classification of Diploma

National Diploma (ND) shall be awarded in four classes as follows:

- Distinction - CGPA of 3.50 and above
- Upper Credit - CGPA of 3.00 – 3.49
- Lower Credit - CGPA of 2.50 – 2.99
- Pass - CGPA of 2.00 – 2.49

10.3 Grading of Courses:

Courses shall be graded as follows:

MARKED RANGE	LETTER GRADE GRADE	WEIGHTING
75% and above	A	4.00
70% – 74%	AB	3.50
65% – 69%	B	3.25
60% – 64%	BC	3.00
55% – 59%	C	2.75
50% – 54%	CD	2.50
45% – 49%	D	2.25
40% – 44%	E	2.00
Below 40%	F	0.0

11.0 GUIDANCE NOTES FOR TEACHERS

- 11.1** The new curriculum is drawn in unit courses. This is in keeping with the provisions of the National Policy on Education which stress the need to introduce the semester credit units which will enable a student who so wishes to transfer the units already completed in an institution of similar standard from which he/she is transferring.
- 11.2** In designing the units, the principle of the modular system by product has been adopted, and each of the professional modules, when completed provides the student with Officers/technician operative skills, which can be used for employment purposes or self-reliance.
- 11.3** As the success of the credit unit system depends on the articulation of the programme between the institutions and industry, the curriculum content has been written in behavioral objectives, so that it is clear to all the expected performance of the student who successfully completed some of the courses or the diplomates of the programme. This is slight departure in the presentation of the performance-based curriculum which requires the conditions under which the performance is expected to be carried out and the criteria for the acceptable levels of performance. It is a deliberate attempt to further involve the staff of the department teaching the programme to write their own curriculum stating the conditions existing in their institution under which performance can take place and to follow that with the criteria for determining an acceptance level of performance.

The Academic Board of the institution may vet departmental submission on the final curriculum. Our aim is to continue to see to it that a solid internal evaluation system exists in each institution for ensuring minimum standard and quality of education in the programmes offered throughout the Polytechnic/Monotechnic system.

- 11.4** The teaching of the theory and practical work should, as much as possible, be integrated. Practical exercises especially those in professional courses and laboratory work should not be taught in isolation from the theory. For each course, there should be at least balance of theory to practical in the ratio of 70:30.

11.5 ASSESSMENT:

	Classwork /practical &Laboratory Works	Total
Examination		70
CA		30
Total		100

12.0 PRACTICAL LOGBOOK

A personal Logbook to be kept by each student shall contain all day-to-day, weekly summary and semester summary of all the practical activities from day one to the end of the programme. This is to be checked, marked, endorsed and recorded by the lecturers/technologists concerned at the end of every week.

13.0 FINAL YEAR PROJECT

Final year students in this programme are expected to carry out a project work. This could be on individual basis or group work of not more than three students per group, but reporting must be undertaken individually. The project should, as much as possible be related to the programme. Project reports should be well presented and should be properly supervised. The departments should make their own arrangement of schedules for project work.

CURRICULUM TABLE**YEAR I SEMESTER I**

COURSE CODE	COURSE TITLE	L	P	CU	CH
STM 311	Bacteriology	1	2	3	3
NUD 311	Human Nutrition I	2	1	3	3
GNS 401	Communication in English III	2	-	2	2
MSQ 311	Quality Assurance Assessor (QAA)	-	-	-	2
DTH 311	Medical Emergencies	1	1	2	2
DTH 312	Dental Pharmacology	2	-	2	2
DTH 313	Primary Oral Health Care	1	1	2	2
DTH 314	Paedodontics	2	1	3	3
DTH 315	Introduction to Orthodontics	1	1	2	2
DTH 316	Dental Radiography II	1	2	3	3
DTH 317	Dental Care of Hospital Patients	1	1	2	2
DTH 318	Clinical Practice I	1	2	3	3
	Total	15	12	27	29

YEAR I**SEMESTER II**

COURSE CODE	COURSE TITLE	L	P	CU	CH
NUD 321	Human Nutrition II	2	1	3	3
GNS 323	Medical Psychology	2	-	2	2
ENT 326	Practice of Entrepreneurship I	2	2	2	4
MSQ 321	Quality Assurance Assessor (QAA)	-	-	-	2
DTH 321	Clinical Practice II	-	3	3	3
DTH 322	Anesthesiology	1	1	2	2
DTH 323	Dental Instrumentation II	1	1	2	2
DTH 324	Oral Pathology	2	1	3	3
DTH 325	Oral Diagnosis and Treatment Planning	1	1	2	2
DTH 326	Introduction to Dental Gerontology	1	1	2	2
DTH 327	Care of Patients with Special Needs	1	1	2	2
DTH 328	Research Methodology in Dental Therapy	2	-	2	2
	SIWES	-	-	-	-
	Total	15	12	25	29

YEAR II**SEMESTER I**

COURSE CODE	COURSE TITLE	L	P	CU	CH
STA 416	Medical Statistics	2	-	2	2
GNS 401	Communication in English IV	2	-	2	2
ENT 416	Practice of Entrepreneurship II	2	2	4	4
DTH 411	Contemporary Dentistry	1	2	3	3
DTH 412	Oral Health Education and Promotion	1	1	2	2
DTH 413	Dental Office Management	1	1	2	2
DTH 414	Periodontology	1	1	2	2
DTH 415	Cariology	1	1	2	2
DTH 416	Clinical Practice III	-	3	3	3
DTH 417	Seminar	-	-	2	2
	Total	11	11	24	24

YEAR II SEMESTER II

COURSE CODE	COURSE TITLE	L	P	CU	CH
NUD 322	Clinical Diseases and Diet Therapy I (Clinical Diseases and Diet Therapy II)	3	-	3	3
DTH 421	Ethics and Professional Practice in Dental Therapy	3	-	3	3
DTH 422	Clinical Practice 1V	-	3	3	3
DTH 423	Communicable and Non-Communicable Diseases	2	-	2	2
DTH 424	Project	-	-	6	6
	Total	8	3	17	17

NOTE: Borrowed/Foundation/General Courses in *italics* above are to be obtained from the respective programme curricula.

KEY:

L= Lecture hours, T= Tutorial hours, P= Practical hour

YEAR I SEMESTER I

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Medical Emergencies	COURSE CODE: DTH 311	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: I	PRE-REQUISITE	PRACTICAL: 1
GOAL: This course is designed to provide the students with knowledge and skills of managing medical emergencies in the dental clinic		
<p>GENERAL OBJECTIVE: On completion of this course, the students should be able to:</p> <ul style="list-style-type: none"> 1.0: Understand Medical Emergencies 2.0: Know Prevention Techniques for Medical Emergencies 3.0: Understand the need to Prepare for Medical Emergencies 4.0: Know the documentation during Medical Emergencies in Clinical Practice 5.0: Know Collaboration with Medical Teams During Emergencies 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Medical Emergencies		COURSE CODE: DTH 311			CREDIT UNIT: 2	
		CONTACT HOURS: 2			THEORETICAL: 1	
YEAR: I SEMESTER: I		PRE-REQUISITE			PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide the students with knowledge and skills of managing medical emergencies in the dental clinic						
THEORETICAL CONTENT				PRACTICAL CONTENT		
General Objective 1.0: Know Medical Emergencies						
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Define medical emergencies in dental settings 1.2 List types medical emergencies and their clinical manifestations 1.3 Describe characteristics of the following: <ul style="list-style-type: none"> • life-threatening conditions • sudden onset in otherwise healthy individuals 	Explain medical emergencies in dental settings Explain types medical emergencies and their clinical manifestations Explain characteristics of the following: <ul style="list-style-type: none"> • life-threatening conditions • sudden onset in otherwise healthy individuals 	Textbooks Journals Charts Visual Aids Whiteboard Computer Internet Marker Projector			

General Objective 2.0: Know Prevention Techniques for Medical Emergencies						
3-5	2.1 Describe how to take the medical history of patients	Explain how to take the medical history of patients	Textbooks Journals Whiteboard Marker	Take medical history of a patient Role-play activities for handling high-risk patients	Guide student to: Take medical history of a patient	Thermometer Sphygmoma no-meter
	2.2 Explain types of stress-reduction measures	Explain types of stress-reduction measures	Computer Projector Internet Charts	Identify essential drugs for patients with medical emergencies	Role-play activities for handling high-risk patients.	Dental unit
	2.3 Explain patient reassurance as a preventive approach	Explain patient reassurance as a preventive approach				
	2.4 Explain patient communication and stress reduction	Explain patient communication and stress reduction			Identify essential drugs for patients with medical emergencies	
	2.5 Explain essential drugs for patients with medical emergencies	Explain essential drugs for patients with medical emergencies				
General Objective 3.0: Know how to prepare for Medical Emergencies						
6-8	3.1 Explain emergency equipment e.g.: <ul style="list-style-type: none"> Automated Emergency Defibrillator (AED) Oxygen tank Epinephrine injectors 	Explain emergency equipment e.g.: <ul style="list-style-type: none"> AED Oxygen tank Epinephrine injectors 	Medical journals Textbooks Journals Whiteboard Marker Computer Projector Internet	Demonstrate proper use of emergency devices and equipment Simulation	Guide student to: Demonstrate proper use of emergency devices and equipment Simulation	First Aid kit Simulation tools Medical emergency kit

	<p>3.2 Explain technology-assisted hospital contacts</p> <p>3.3 List components of a comprehensive emergency kit</p> <p>3.4 Describe how to access nearby hospitals via emergency service technology</p> <p>3.5 Explain management of common emergencies in dental clinic:</p> <ul style="list-style-type: none"> • Cardiopulmonary Resuscitation (CPR) • Positioning • Clear of the air way 	<p>Explain technology-assisted hospital contacts</p> <p>Explain components of a comprehensive emergency kit</p> <p>Explain how to access nearby hospitals via emergency service technology</p> <p>Explain management of common emergencies in dental clinic:</p> <ul style="list-style-type: none"> • Cardiopulmonary Resuscitation (CPR) • Positioning • Clear of the air way 	Charts	<ul style="list-style-type: none"> • Cardiopulmonary Resuscitation (CPR) • Positioning • Clear of the air way 	<ul style="list-style-type: none"> • Cardiopulmonary Resuscitation (CPR) • Positioning <p>Clear of the air way</p>	
General Objective 4.0: Know documentation during Medical Emergencies in Clinical Practice						
9-10	<p>4.1 Explain management of medical emergencies</p> <p>4.2 Explain how to document medical emergencies:</p>	<p>Explain management of medical emergencies</p> <p>Explain how to document medical emergencies:</p>	<p>Textbooks</p> <p>Documentation tools</p> <p>Journals</p> <p>Whiteboard</p> <p>Marker</p>	<p>Record a complete emergency response :</p> <ul style="list-style-type: none"> • Pre-documentation 	<p>Guide students to:</p> <p>Record a complete emergency response :</p> <ul style="list-style-type: none"> • Pre-documentation 	<p>Patient records</p> <p>Sample emergency forms</p>

	<ul style="list-style-type: none"> • Pre-documentation • On-site documentation • Post-documentation <p>4.3 Describe benefits of proper documentation</p> <p>4.4 Explain record-keeping practice in medical emergencies</p>	<ul style="list-style-type: none"> • Pre-documentation • On-site documentation • Post-documentation <p>Explain benefits of proper documentation</p> <p>Explain record-keeping practice in medical emergencies</p>	<p>Computer Projector Internet Charts</p>	<ul style="list-style-type: none"> • On-site documentation • Post-documentation <p>Write a report</p> <p>Demonstrate record-keeping practice</p>	<ul style="list-style-type: none"> • On-site documentation • Post-documentation <p>Write a report</p> <p>Demonstrate record-keeping practice</p>	
General Objective 5.0: Understand how to collaborate Effectively with Medical Teams during Emergencies						
11-12	<p>5.1 Explain emergency communication protocols with healthcare providers</p> <p>5.2 Explain how to coordinate emergency procedures with healthcare teams</p> <p>5.3 Explain collaboration techniques for emergency response teams</p>	<p>Explain emergency communication protocols with healthcare providers</p> <p>Explain how to coordinate emergency procedures with healthcare teams</p> <p>Explain collaboration techniques for emergency response teams</p>	<p>Textbooks Journals Whiteboard Marker Computer Projector Internet Charts</p>	<p>Role play medical team collaboration</p>	<p>Guide students to: Role play medical team collaboration</p>	<p>First Aid Kit</p>

EVALUATION: C.A: 40%
EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Dental Pharmacology	COURSE CODE: DTH 311	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 2
YEAR: I SEMESTER: I	PRE-REQUISITE	PRACTICAL: 0
GOAL: This course is designed to provide students with the knowledge and skills of drugs management and administration in dental practice.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
1.0 Understand drug groupings. 2.0 Understand drug management, storage, labeling, and prescription. 3.0 Understand the management of complications arising from drug use 4.0 Know national and international drug regulations in dental practice.		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Dental Pharmacology		COURSE CODE: DTH 311		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 2		
YEAR:	SEMESTER:	PRE-REQUISITE		PRACTICAL: 0		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with the knowledge and skills of drug management and administration in dental practice						
General Objective 1.0: Understand drug groupings.						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Define drug groupings 1.2 Explain types of drug groupings: <ul style="list-style-type: none"> • Analgesics • Antiseptics • Antibiotics • Anesthetics etc. 1.3 Explain examples of common drugs in each group 1.4 Explain the relevance of each drug group in dentistry	Explain drug groupings Explain types of drug groupings <ul style="list-style-type: none"> • Analgesics • Antiseptics • Antibiotics • Anesthetics etc. Explain examples of common drugs in each group Explain the relevance of each drug group in dentistry	Textbooks Journals Internet Computer Projector Whiteboard Marker Charts			

General Objective 2.0: Understand drug management, storage, labeling, and prescription.					
3-5	2.1 Explain drug safety classifications 2.2 Describe proper storage methods 2.3 Explain proper drug labelling in dental practice 2.4 Explain drug prescription in dental practice	Explain drug safety classifications Explain proper storage methods. Explain proper drug labelling in dental practice Explain drug prescription in dental practice	Textbooks Journals Internet Computer Whiteboard Marker Sample drug labels Storage containers		
General Objective 3.0: Understand the management of complications arising from drug use					
6-8	3.1 Define drug complications 3.2 List potential complications associated with drug use: <ul style="list-style-type: none"> • Allergic reactions • Adverse side effects 3.3 Explain common reactions related to specific drugs: <ul style="list-style-type: none"> • Antibiotics • Anaesthetics 	Explain drug complications Explain potential complications associated with drug use: <ul style="list-style-type: none"> • Allergic reactions • Adverse side effects Explain common reactions related to specific drugs: <ul style="list-style-type: none"> • Antibiotics • Anaesthetics 	Textbooks Journals Internet Computer Whiteboard Marker Emergency protocol manuals		

	3.4 Explain emergency management procedures in 3.3 above	Explain emergency management procedures in 3.3 above				
General Objective 4.0: Know national and international drug regulations in dental practice.						
9-10	<p>4.1 Explain National and International drug regulation</p> <p>4.2 Explain relevant legal guidelines for drug administration</p> <ul style="list-style-type: none"> • Nigerian Dangerous Drugs Act (DDA) • WHO regulations <p>4.3 Describe ethical and professional responsibilities in prescribing and managing drugs.</p>	<p>Explain National and International drug regulation</p> <p>Explain relevant legal guidelines for drug administration</p> <ul style="list-style-type: none"> • Nigerian Dangerous Drugs Act (DDA) • WHO regulations <p>Explain ethical and professional responsibilities in prescribing and managing drugs.</p>	<p>Regulatory documents</p> <p>Textbooks</p> <p>Journals</p> <p>Internet</p> <p>Whiteboard</p> <p>Marker</p> <p>Computer</p>			

EVALUATION: CA: 30%
EXAMINATION: 70%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Primary Oral Health Care	COURSE CODE: DTH 313	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: 1 SEMESTER: 1	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with knowledge and skills to manage oral diseases in primary health care centres.		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <ul style="list-style-type: none"> 1.0 Know common oral diseases and their diagnosis 2.0 Understand Oral Health Screenings and Manage Common Oral Diseases in the Community 3.0 Understand preventive and control measures for dental health 4.0 Understand principles of epidemiology in oral health 5.0 Understand community-based oral health program design for prevalent dental issues 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Primary Oral Health Care		COURSE CODE: DTH 313			CREDIT UNIT: 2	
		CONTACT HOURS: 2			THEORETICAL: 1	
YEAR: 1 SEMESTER: 1		PRE-REQUISITE:			PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with knowledge and skills to manage oral diseases in primary health care centres						
General Objective 1.0: Know common oral diseases and their diagnosis						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Define oral health	Explain oral health	Textbooks		Guide the students	Oral examination set
	1.2 Explain the significance of oral health	Explain the significance of oral health	Journals Diagrams Whiteboard Marker Computer Internet	Conduct oral examinations in a community setting	Conduct oral examinations in a community setting	Mobile Dental chair
	1.3 Describe the anatomy of the mouth, including teeth and gingivae	Explain the anatomy of the mouth, including teeth and gingivae		Identify dental issues, with a focus on plaque and gingivitis identification	Identify dental issues, with a focus on plaque and gingivitis identification	
	1.4 Explain the causes (aetiology) of periodontal diseases and dental caries	Explain the causes (aetiology) of periodontal diseases and dental caries		Conduct community oral screenings	Conduct community oral screenings	
	1.5 State signs of inflamed gingivae	Explain signs of inflamed gingivae		Identify dental plaque, calculus, and	Identify dental plaque, calculus,	

	1.6 Describe the composition of dental plaque and calculus	Explain the composition of dental plaque and calculus		caries in the oral cavity.	and caries in the oral cavity.	
	1.7 Explain pathology of common oral conditions	Explain pathology of common oral conditions.				
	1.8 Explain common oral health issues	Explain common oral health issues.				
	1.9 Explain the diagnosis procedure of oral diseases	Explain the diagnosis procedure of oral diseases				
General Objective 2.0: Understand preventive and control measures for dental health						
6-7	2.1 Describe preventive and control measures for dental diseases e.g.: hygiene and dietary practices	Explain preventive and control measures for common dental diseases e.g.: hygiene and dietary practices	Textbooks Whiteboard Marker Internet Projector Computer	Carry out community-oriented oral health education session	Guide students to: Carry out community-oriented oral health education session.	Pamphlets Charts
	2.2 Explain steps for community-based disease prevention	Explain steps for community-based disease prevention	Health promotion materials			
	2.3 Explain how to develop an oral health education program for community dental disease prevention	Explain an oral health education program for community dental disease prevention	Charts			

	2.4 Explain the importance of community health education in oral health.	Explain the importance of community health education in oral health.				
General Objective 3.0: Understand principles of epidemiology in oral health						
8-10	<p>3.1 Define epidemiology</p> <p>3.2 Explain common epidemiological terms, such as:</p> <ul style="list-style-type: none"> • Incidence, • Prevalence • Endemic • Pandemic • <p>3.3 Explain factors influencing the epidemiology of dental diseases:</p> <ul style="list-style-type: none"> • Dental caries • Periodontal disease <p>3.4 Explain the procedure for collecting and analyzing epidemiological data</p>	<p>Explain epidemiology</p> <p>Explain common epidemiological terms, such as</p> <p>Incidence,</p> <ul style="list-style-type: none"> • Prevalence • Endemic • Pandemic <p>Explain factors influencing the epidemiology of dental diseases:</p> <ul style="list-style-type: none"> • Dental caries • Periodontal disease <p>Explain the procedure for collecting and analyzing epidemiological data</p>	<p>Textbooks</p> <p>Journals</p> <p>Internet</p> <p>Computer</p> <p>Projector</p> <p>Whiteboard</p> <p>Marker</p> <p>Epidemiology charts</p>	<p>Conduct a survey in a community to gather epidemiological data on oral diseases</p> <p>Analyze the data.</p>	<p>Guide students to:</p> <p>Conduct a survey in a community to gather epidemiological data on oral diseases</p> <p>Analyze the data.</p>	<p>Sample Survey forms</p> <p>Data collection tools</p>

General Objective 4.0: Understand community-based oral health program design for prevalent dental issues						
11-12	4.1 Explain community-based oral health program	Explain community-based oral health program	Whiteboard Marker Internet	Design community based oral health programme	Guide students to: Design community based oral health programme	Presentation kit
	4.2 Explain the methods for program design and implementation	Explain the methods for program design and implementation.	Computer Projector Textbooks Case studies	Carryout implementation of BPOC	Carryout implementation of BPOC	Sample Feedback forms
	4.3 Explain basic package for oral health care (BPOC)	Explain basic package for oral health care (BPOC)				Sample Standing order of ICOH/WHO

EVALUATION: C.A:

40%

EXAMINATION:

60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Paedodontics	COURSE CODE: DTH 314	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 2
YEAR: 1 SEMESTER: 1	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to equip students with knowledge and skills of managing dental diseases in children.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Understand the dental anatomy of child patients 2.0 Know effective management of child patients 3.0 Understand comprehensive examinations of the oral cavity in paediatric patients 4.0 Understand conservative dental procedures for children 5.0 Understand extraction procedures for children 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Pedodontics			COURSE CODE: DTH 314		CREDIT UNIT: 3	
			CONTACT HOURS: 3		THEORETICAL: 2	
YEAR: 1 SEMESTER: 1			PRE-REQUISITE:		PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills of managing dental diseases in children.						
General Objective 1.0: Understand the dental anatomy of child patients						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define Pedodontics	Explain Pedodontics	Textbooks Visual aids		Guide students to:	Dental models
	1.2 Explain types of teeth in deciduous dentition	Explain types of teeth in deciduous dentition.	Whiteboard Computer Internet	Identify tooth types in deciduous dentition.	Identify tooth types and anatomy in deciduous dentition.	Visual aids
	1.3 Describe anatomy of deciduous dentition	Explain anatomy of deciduous dentition	Projector Marker	Identify the anatomical structures of deciduous dentition.	Identify the anatomical structures of deciduous dentition.	Charts
	1.4 Explain root formation and tooth eruption relationships	Explain root formation and tooth eruption relationships				
	1.5 Explain eruption dates for deciduous teeth	Explain eruption dates for deciduous teeth				

	1.6 Explain the age for space establishment for permanent teeth	Explain the age for space establishment for permanent teeth				
	1.7 Explain conditions leading to space loss in deciduous teeth	Explain conditions leading to space loss in deciduous teeth				
	1.8 Explain the need for tooth retention before exfoliation in children.	Explain the need for tooth retention before exfoliation in children.				
General Objective 2.0: Know effective management of child patients						
4	2.1 Describe typical reactions of children to the dental environment	Explain typical reactions of children to the dental environment	Textbooks Visual aids Whiteboard Computer	Role-play scenarios on motivational strategies:	Guide students to: Role-play scenarios on motivational strategies:	Case studies Cartoons Mascot
	2.2 Explain motivational techniques to manage these reactions	Explain motivational techniques to manage these reactions	Internet Projector Marker	<ul style="list-style-type: none"> • Cartoons • Mascot 	<ul style="list-style-type: none"> • Cartoons • Mascot 	
	2.3 Describe management strategies to sustain a child's attention during dental procedures.	Explain management strategies to sustain a child's attention during dental procedures.				

General Objective 3.0: Understand comprehensive examinations of the oral cavity in pediatric patients						
5-7	3.1 Explain oral examination procedure for children	Explain oral examination procedure for children	Textbooks Visual aids Whiteboard Computer	Conduct oral examinations using child-specific instruments on dental models.	Guide students to: Conduct oral examinations using child-specific instruments on dental models.	Dental models Examination kits
	3.2 List instruments use for oral examination	Explain instruments use for oral examination	Internet Projector Marker	Demonstrate the use of examination sets	Demonstrate the use of examination sets	
	3.3 Explain the use of examination sets	Explain the use of examination sets				
General Objective 4.0: Understand conservative dental procedures for children						
8-11	4.1 Explain oral health presentations in children	Explain oral health presentations in children	Textbooks Visual aids Whiteboard Computer	Perform conservative procedures:	Guide students to: Perform conservative procedures:	Dental models
	4.2 Explain possible diagnoses e.g.: • Rampant caries • Ulcers	Explain possible diagnoses e.g.: • Rampant caries • Ulcers •	Internet Projector Marker	<ul style="list-style-type: none"> • Scaling and Polishing • Temporary fillings • Fissure sealants 	<ul style="list-style-type: none"> • Scaling and Polishing • Temporary fillings • Fissure sealants 	Sealants Temporary fillings materials
	4.3 Define dental caries and its occurrence in children	Explain dental caries and its occurrence in children		Apply rubber dam	Apply rubber dam	Ultrasonic Scalers
	4.4 Describe caries control methods for children	Explain caries control methods for children				Hand instruments Mouth gag Condenser

	4.5 Explain other common paediatric conditions beyond caries	Explain other common paediatric conditions beyond caries				Carver
	4.6 Explain control methods for these conditions	Explain control methods for these conditions				Ball burnisher
	4.7 Explain treatment options e.g.:	Explain treatment options e.g.:				Excavator
	<ul style="list-style-type: none"> • Scaling • Filling • Extraction 	<ul style="list-style-type: none"> • Scaling • Filling • Extraction 				Spatula
	4.8 Describe required instruments, materials, and drugs	Explain required instruments, materials, and drugs				Mixing slab
	4.9 Explain indications and contraindications for materials	Explain indications and contraindications for materials				Air and water syringe
	4.10 Explain rubber dam and fissure sealants	Explain rubber dam and fissure sealants				Brush
	4.11 Explain indications for using stainless steel crowns in children	Explain indications for using stainless steel crowns in children				Fissure sealant kit
						UV curing light
						Protective goggle

	4.12 Explain post-operative instructions	Explain post-operative instructions				
General Objective 5.0: Understand extraction procedures for children						
12-15	5.1 Define pain control	Explain pain control	Textbooks	Simulate extractions using models to demonstrate techniques and pain management. Demonstrate "Serial Extraction" procedures. Administer local anaesthesia to children.	Guide students to: Simulate extractions using models to demonstrate techniques and pain management. Demonstrate "Serial Extraction" procedures. Administer local anaesthesia to children.	Dental models, Local anaesthesia setup Forceps Elevators Dental syringe
	5.2 Describe pain threshold	Explain pain threshold	Visual aids Whiteboard			
	5.3 Describe pain control methods suitable for children	Explain pain control methods suitable for children	Computer Internet Projector Marker			
	5.4 Explain the importance of x-rays in paediatric extractions	Explain the importance of x-rays in paediatric extractions				
	5.5 Define "Serial Extraction" procedures	Explain "Serial Extraction" procedures				
	5.6 Define local anaesthesia	Explain local anaesthesia				
	5.7 Explain procedure for local anaesthesia administration	Explain procedure for local administration				
	5.8 List forceps and elevators for extractions	Explain forceps and elevators for extractions				

	5.9 Describe appropriate instrument grasp and technique	Explain appropriate instrument grasp and technique				
	5.10 Explain post-extraction care instructions	Explain post-extraction care instructions				

EVALUATION: CA: 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Introduction to Orthodontics	COURSE CODE: DTH 315	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: 1 SEMESTER: 1	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with knowledge and skills of dental anomalies		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Understand Terminologies Used in Orthodontics 2.0 Know Dental Anomalies in Humans 3.0 Understand Procedures to Prevent and Correct Dental Anomalies 4.0 Know Orthodontic Appliances 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Introduction to Orthodontics		COURSE CODE: DTH 315		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: 1 SEMESTER: 1		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with knowledge and skills of dental anomalies						
General Objective 1.0: Understand Terminologies Used in Orthodontics						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define orthodontics 1.2 Define Occlusion 1.3 Describe types of Occlusion: <ul style="list-style-type: none"> • Normal Occlusion • Malocclusion • Centric Occlusion • Static Occlusion • Dynamic Occlusion 	Explain orthodontics Explain occlusion Explain normal types of Occlusion: <ul style="list-style-type: none"> • Normal Occlusion • Malocclusion • Centric Occlusion • Static Occlusion • Dynamic Occlusion 	Textbooks Journals Internet Computer Projector Whiteboard Marker	Identify facial profiles Sketch facial profiles Draw different classes of malocclusions	Guide students to: Identify facial profiles Sketch facial profiles Draw different classes of malocclusions	Art supplies Dental models Worksheet

	<p>1.4 Explain classifications of malocclusions:</p> <ul style="list-style-type: none"> • Class I, • Class II division 1 and 2, • Class III. <p>1.5 Explain different types of facial profiles</p>	<p>Explain classifications of malocclusion</p> <ul style="list-style-type: none"> • Class I, • Class II division 1 and 2, • Class III. <p>Explain different types of facial profiles</p>				
General Objective 2.0: Know Dental Anomalies in Humans						
3-8	<p>2.1 Describe types of malrelations of groups of teeth:</p> <ul style="list-style-type: none"> • Crossbite, • Edge-to-edge bite, • End-to-end bite, • Openbite, • Overbite, • Overjet, • Underjet etc. <p>2.2 Explain anomalies in 2.1 above</p>	<p>Explain the types of malrelations of groups of teeth:</p> <ul style="list-style-type: none"> • Crossbite, • Edge-to-edge bite, • End-to-end bite, • Openbite, • Overbite, • Overjet, • Underjet etc. <p>Explain anomalies in 2.1 above</p>	<p>Textbooks Journals Internet Computer Projector Whiteboard Marker</p>	<p>Identify malrelations and malpositions of teeth</p> <p>Draw malrelationship of 2.1</p>	<p>Guide students to:</p> <p>Identify malrelations and malpositions of teeth</p> <p>Draw malrelationship of 2.1</p>	<p>Dental models, Charts Posters Atlas</p>

	<p>2.3 List types of malposition of individual teeth:</p> <ul style="list-style-type: none"> • Labioversion, • Linguoversion, • Buccoversion, • Supraversion, • Torsoversion, • Infraversion • <p>2.4 Define malposition in 2.3 above</p> <p>2.5 Explain other dental anomalies (e.g., cleft lip).</p>	<p>Explain types of malposition of individual teeth:</p> <ul style="list-style-type: none"> • Labioversion, • Linguoversion, • Buccoversion, • Supraversion, • Torsoversion, • Infraversion <p>Explain malposition in 2.3 above</p> <p>Explain other dental anomalies (e.g., cleft lip)</p>				
General Objective 3.0: Understand Procedures to Prevent and Correct Dental Anomalies						
9-11	<p>3.1 Explain bad habits leading to different types of malrelations</p> <p>3.2 Explain bad habits leading to different malpositions</p> <p>3.3 Explain how to correct bad habits in 3.1 and 3.2</p>	<p>Explain the bad habits leading to malrelations</p> <p>Explain bad habits leading to malpositions</p> <p>Explain how to correct bad habits in 3.1 and 3.2</p>	<p>Textbooks</p> <p>Journals</p> <p>Internet</p> <p>Computer</p> <p>Projector</p> <p>Whiteboard</p> <p>Marker</p>			

	3.4 Explain dental anomalies not due to bad habits 3.5 Explain how to correct anomalies in 3.4	Explain dental anomalies not due to bad habits Explain how to correct anomalies in 3.4				
General Objective 4.0: Know Orthodontic Appliances						
13-14	4.1 Define orthodontic appliances: <ul style="list-style-type: none"> • removable appliances • fixed appliances 4.2 Explain removable appliances 4.3 Explain types of removable appliance 4.4 List components of removable appliance 4.5 Explain fixed appliances 4.6 Explain types of fixed appliances 4.7 List components of fixed appliances	Explain orthodontic appliances: <ul style="list-style-type: none"> • removable appliances • fixed appliances Explain removable appliances Explain types of removable appliance Explain components of removable appliance Explain fixed appliances Explain types of fixed appliances Explain components of fixed appliances	Textbooks Journals Internet Computer Projector Whiteboard Marker	Identify components of orthodontic appliances.	Guide students to: Identify components of orthodontic appliances.	Orthodontic appliances Instruction manuals

	4.8 Explain appliances for correcting anomalies in 2.1 and 2.3 above	Explain appliances for correcting anomalies in 2.1 and 2.3 above				
	4.9 Explain care and maintenance of removable and fixed appliances	Explain care and maintenance of removable and fixed appliances				

EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Dental Radiography II	COURSE CODE: DTH 316	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 1
YEAR: I SEMESTER: I	PRE-REQUISITE: DTH 216	PRACTICAL: 2
GOAL: This course designed to equip student with the knowledge and skills of radiographic techniques and production		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Understand the production of x-rays 2.0 Know dental films and their uses 3.0 Understand the process of taking and processing dental films 4.0 Know the anatomical landmarks on radiographs 5.0 Know the pathological features on radiographs 6.0 Know how to diagnose faults on radiographs 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Dental Radiography II		COURSE CODE: DTH 316		CREDIT UNIT: 3		
		CONTACT HOURS: 3		THEORETICAL: 1		
YEAR: I	SEMESTER: I	PRE-REQUISITE: DTH 216		PRACTICAL: 2		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course designed to equip student with the knowledge and skill of radiographic techniques and production						
General Objective 1.0: Understand the production of x-rays.						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Describe the components of x-ray machine 1.2 Explain the functions of x-ray machine 1.3 Explain the process of : <ul style="list-style-type: none"> • x-ray production • covering principles of radiation • Ionization. 1.4 Enumerate hazards of x-rays to both operators and patients	Explain the components of x-ray machine Explain the functions of x-ray machine Explain the process of : <ul style="list-style-type: none"> • x-ray production • covering principles of radiation • Ionization. Explain hazards of x-rays to both operators and patients Explain necessary precautions to prevent	Textbooks Journals Internet Computer Projector Whiteboard Marker	Identify the component of the x-ray machine Demonstrate steps in x-ray production Identify potential hazards during operation	Guide students to Identify the component of the x-ray machine Demonstrate steps in x-ray production Identify potential hazards during operation	X-ray machine Safety equipment Radiation monitoring devices Lead apron Lead shield Leaded wall

	1.5 Outline necessary precautions to prevent x-ray hazards in 1.4 above	x-ray hazards in 1.4 above				
General Objective 2.0: Know dental films and their uses						
4-5	2.1 Explain types of dental films, such as : <ul style="list-style-type: none"> • Intra-Oral • Extra-oral films 2.2 Describe types of intra-oral films: <ul style="list-style-type: none"> • Periapical • Occlusal • Bite-wing 2.3 Explain the uses of each type of intra-oral film in 2.2 above	Explain types of dental films, such as : <ul style="list-style-type: none"> • Intra-Oral • Extra-oral films Explain types of intra-oral films: <ul style="list-style-type: none"> • Periapical • Occlusal • Bite-wing Explain the uses of each type of intra-oral film in 2.2 above	Textbooks Journals Internet Computer Projector Whiteboard Marker	Identify types of dental films Demonstrate the use of dental films	Guide students to Identify types of dental films Demonstrate the use of dental films	Dental films Film holder Radiographic machine
General Objective 3.0: Understand the process of taking and processing dental films.						
6-9	3.1 Describe the steps for taking periapical radiographs	Explain the steps for taking periapical radiographs	Textbooks Journals Internet Projector	Perform the different radiographic techniques (periapical, bite-	Guide students to Perform the different radiographic techniques (periapical, bite-	Radiographic machine Developing tank

	<p>3.2 Explain the techniques for taking periapical radiographs:</p> <ul style="list-style-type: none"> • Density of the image (kilovoltage, current, time, film, distance) • Bisecting angle technique • Paralleling technique. • Helpful hints 	<p>Explain the techniques for taking periapical radiographs:</p> <ul style="list-style-type: none"> • Density of the image (kilovoltage, current, time, film, distance) • Bisecting angle technique • Paralleling technique. • Helpful hints 	<p>Computer Whiteboard Marker</p>	<p>wing, occlusal) on models</p> <p>Practice film processing and identify any necessary corrections during development.</p>	<p>wing, occlusal) on models</p> <p>Practice film processing and identify any necessary corrections during development</p>	<p>Fixing solution</p>
	<p>3.3 Explain factors employed in taking periapical radiograph</p>	<p>Explain factors employed in taking periapical radiograph</p>				
	<p>3.4 Explain the process of taking bite-wing and occlusal radiographs</p>	<p>Explain the process of taking bite-wing and occlusal radiographs</p>				
	<p>3.5 Outline the procedures for taking extra-oral radiographs</p>	<p>Explain the procedures for taking extra-oral radiographs</p>				
	<p>3.6 Describe film processing steps:</p> <ul style="list-style-type: none"> • Developing • Rinse 	<p>Explain film processing steps:</p> <ul style="list-style-type: none"> • Developing • Rinse 				

	<ul style="list-style-type: none"> • Fixing • Washing exposed films 	<ul style="list-style-type: none"> • Fixing • Washing exposed films 				
General Objective 4.0: Know the anatomical landmarks on radiographs.						
10-11	<p>4.1 Define anatomical landmark</p> <p>4.2 Explain the importance of anatomical landmarks in interpreting radiographs</p> <p>4.3 Explain key anatomical landmarks visible in radiographs</p> <ul style="list-style-type: none"> • Curve of Speed • Nasal cavity • Maxillary sinus • Mandibular canal • Mental foramen • Zygomatic arch • Dental structure (pulp, roots, lamina dura) 	<p>Explain anatomical landmark</p> <p>Explain the importance of anatomical landmarks in interpreting radiographs</p> <p>Explain key anatomical landmarks visible in radiographs</p> <ul style="list-style-type: none"> • Curve of Speed • Nasal cavity • Maxillary sinus • Mandibular canal • Mental foramen • Zygomatic arch • Dental structure (pulp, roots, lamina dura) 	<p>Textbooks</p> <p>Journals</p> <p>Charts</p> <p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Computer</p>	<p>Identify anatomical landmarks on actual radiographs</p>	<p>Guide students to:</p> <p>Identify anatomical landmarks on radiographs</p>	<p>Radiographic images</p> <p>Anatomical charts</p>
General Objective 5.0: Know the pathological features on radiographs.						
12-13	<p>5.1 Explain pathological features on radiographs e.g.:</p> <ul style="list-style-type: none"> • Caries 	<p>Explain pathological features on radiographs e.g.:</p>	<p>Textbooks</p> <p>Journals</p> <p>Radiographic</p>		<p>Guide students in</p> <p>Identify</p>	<p>Radiographic examples</p>

	<ul style="list-style-type: none"> • Periodontal disease • Fractures • Cyst etc. 	<ul style="list-style-type: none"> • Caries • Periodontal disease • Fractures • Cyst etc. 	images Whiteboard Projector Computer Internet Marker	Identify pathological features Differentiate between restorative materials in radiographs	pathological features Differentiate between restorative materials	Diagnostic tools
	5.2 Describe the appearance of restorative materials	Explain the appearance of restorative materials				
	5.3 Describe pathological changes in radiographic images	Explain pathological changes in radiographic images				
General Objective 6.0: Know how to diagnose faults on radiographs						
14-15	6.1 Explain common radiographic faults e.g.: <ul style="list-style-type: none"> • Overlapping • Elongation • Foreshortening • Cone-cutting • Film density issues 	Explain common radiographic faults: <ul style="list-style-type: none"> • Overlapping • Elongation • Foreshortening • Cone-cutting • Film density issues 	Textbooks Journals Radiographic images Whiteboard Projector Computer Internet Marker	Identify faults on radiographic films Demonstrate the techniques to minimize faults in radiographic interpretation	Guide students to: Identify faults on radiographic films Demonstrate the techniques to minimize faults in radiographic interpretation	Radiographic examples Diagnostic tools
	6.2 Explain methods to avoid faults in 6.1 above	Explain methods to avoid faults in 6.1 above				
	6.3 Explain methods to minimize faults in radiographic interpretation	Explain methods to minimize faults in radiographic interpretation				

EVALUATION: CA: 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Dental Care of Hospital Patients	COURSE CODE: DTH 317	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to equip students with knowledge and skills for patient care in hospitals		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
1.0 Understand Common Dental and Related Ailments 2.0 Know Symptoms and Preventive Care 3.0 Know how to Counsel Patients on Good Oral Hygiene 4.0 Know Ethical Standards in Patient Interactions 5.0 Know Specific Patient Needs and Management Techniques 6.0 Know Treatment Materials and Instruments 7.0 Know Nursing Care Procedures		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Dental Care of Hospital Patients			COURSE CODE: DTH 317	CREDIT UNIT: 2		
			CONTACT HOURS: 2	THEORETICAL: 1		
YEAR: I SEMESTER: I			PRE-REQUISITE:	PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills for patient care in hospitals						
General Objective 1.0: Understand Common Dental and Related Ailments						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Explain common dental ailments: <ul style="list-style-type: none"> • Dry socket • Cleft palate • Palatal abscess etc. 1.2 Explain causes, symptoms, and effects of these conditions in 1.1 above 1.3 List preventive measures for common dental ailments	Explain common dental ailments: <ul style="list-style-type: none"> • Dry socket • Cleft palate • Palatal abscess etc Explain causes, symptoms, and effects of these conditions Explain preventive measures for common dental ailments	Textbooks Journals Internet Computer Projector Whiteboard Marker	Identify common dental ailments in the clinic	Guide students to: Identify common dental ailments in the clinic	Case samples visual aids Posters

General Objective 2.0: Know Symptoms and Preventive Care						
4	<p>2.1 Describe common symptoms of dental-related conditions:</p> <ul style="list-style-type: none"> • Cancrum oris • Gingivitis • Maxillofacial pain etc. <p>2.2 Explain preventive care strategies for these conditions in 2.1 above</p> <p>2.3 Explain the importance of routine dental visits for early detection.</p>	<p>Explain common symptoms of dental-related conditions:</p> <ul style="list-style-type: none"> • Cancrum oris • Gingivitis • Maxillofacial pain etc. <p>Explain preventive care strategies for these conditions in 2.1 above</p> <p>Explain the importance of routine dental visits for early detection.</p>	<p>Textbooks</p> <p>Journals</p> <p>Internet</p> <p>Computer</p> <p>Projector</p> <p>Whiteboard</p> <p>Marker</p> <p>Behavioural guides</p>			
General Objective 3.0: Know how to Counsel Patients on Good Oral Hygiene						
6-7	<p>3.1 Define counselling</p> <p>3.2 Explain patient counselling</p> <p>3.3 Define oral hygiene</p> <p>3.4 Describe steps in oral hygiene practices counselling:</p> <ul style="list-style-type: none"> • Brushing • Flossing etc. 	<p>Define counselling</p> <p>Explain patient counselling</p> <p>Explain oral hygiene</p> <p>Explain steps in oral hygiene practices counselling:</p> <ul style="list-style-type: none"> • Brushing • Flossing etc. 	<p>Textbooks</p> <p>Journals</p> <p>Internet</p> <p>Computer</p> <p>Projector</p> <p>Whiteboard</p> <p>Marker</p>	<p>Demonstrate counselling techniques in delivering oral hygiene practice</p>	<p>Guide students to:</p> <p>Demonstrate counselling techniques in delivering oral hygiene practice</p>	<p>Dental care kits</p> <p>Dental models</p> <p>Dietary posters</p>

	3.3 Explain the importance of diet in oral health.	Explain the importance of diet in oral health.				
General Objective 4.0: Know Ethical Standards in Patient Interactions						
8-9	4.1 Define healthcare ethics	Explain healthcare ethics	Textbooks Journals Internet			
	4.2 Explain the relevance of healthcare ethics in patient interactions	Explain the relevance of healthcare ethics in patient interactions	Computer Projector Whiteboard Marker			
	4.3 Discuss managing uncooperative patients	Explain managing uncooperative patients				
	4.4 Explain communication techniques for different patient types	Explain communication techniques for different patient types				
General Objective 5.0: Know Specific Patient Needs and Management Techniques						
10-11	5.1 Describe characteristics of specific patient types (e.g., maxillofacial, elderly)	Explain characteristics of specific patient types (e.g., maxillofacial, elderly)	Patient profiles Textbooks Journals Internet			
	5.2 Explain management techniques for different patient needs	Explain management techniques for different patient needs	Computer Projector Whiteboard Marker			
	5.3 Explain necessary care equipment for various cases	Explain necessary care equipment for various cases				

General Objective 6.0: Know Treatment Materials and Instruments						
12-13	6.1 List treatment materials and their functions (e.g., splints, sterile tools)	Explain treatment materials and their functions (e.g., splints, sterile tools)	Textbooks Journals Internet Computer Projector			
	6.2 Describe protocols for material safety	Explain protocols for material safety	Whiteboard Marker			
	6.3 Describe safety measures to prevent cross-contamination.	Explain safety measures to prevent cross-contamination.				
General Objective 7.0: Know Nursing Care Procedures						
14-15	7.1 Define nursing care	Explain nursing care	Textbooks Journals Internet Computer Projector	Demonstrate nursing procedures under instructor supervision.	Guide students to: Demonstrate nursing procedures under instructor supervision.	Emergency kits Nursing care plan Sterilization supplies Patient guides
	7.2 Explain nursing care procedures for dental patients	Explain nursing care procedures for dental patients	Whiteboard Marker			
	7.3 Describe materials for pre-operative and post-operative care	Explain materials for pre-operative and post-operative care				
	7.4 Explain nursing procedures under instructor supervision.	Explain nursing procedures under instructor supervision				

EVALUATION: CA: 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Clinical Practice I	COURSE CODE: DTH 318	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 1
YEAR: 1 SEMESTER: 1	PRE-REQUISITE:	PRACTICAL: 2
GOAL: This course is designed to equip students with knowledge and skills of Dental Therapy practice in the clinic		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Understand the sanitation and disinfection of the working environment. 2.0 Know the procedures for patients clerking and dental charting. 3.0 Know the procedures for clinical examination and assessment of the Patient. 4.0 Know the technique of removing deposits from surfaces of the teeth. 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Clinical Practice I		COURSE CODE: DTH 318		CREDIT UNIT: 3		
		CONTACT HOURS: 3		THEORETICAL: 1		
YEAR: SEMESTER:		PRE-REQUISITE:		PRACTICAL: 2		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills of Dental Therapy practice in the clinic						
General Objective 1.0: Understand the sanitation and disinfection of the working environment.						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Describe the dental units and the accessories for treatments	Explain the dental units and the accessories for treatments	Textbooks Journals Charts Visual Aids Whiteboard	Familiarize with the setting up of the dental clinic	Guide students to: Familiarize with the setting up of the dental clinic	Sanitation kits Disinfectants
	1.2 Explain the need for keeping the dental clinic neat always	Explain the need for keeping the dental clinic neat always	Computer Internet Marker	Identify equipment in the dental clinic	Identify equipment in the dental clinic	
	1.3 Describe how to sanitize and disinfect the working environment	Explain how to sanitize and disinfect the working environment	Projector	Identify sanitation kits for the clinic	Identify sanitation kits for the clinic	
	1.4 Explain the ideal techniques for sterilization of dental instruments	Explain the ideal techniques for sterilization of dental instruments		Identify disinfectants for cleaning Carry out cleaning of the dental unit	Identify disinfectants for cleaning Carry out cleaning of the dental unit Carry out sterilization of the dental instruments	

				Carry out sterilization of the dental instruments		
General Objective 2.0: Know the procedures for patients clerking and dental charting.						
3-4	<p>2.1 Explain patients clerking</p> <p>2.2 Explain dental charting</p> <p>2.3 Explain vital signs:</p> <ul style="list-style-type: none"> • Blood pressure • Temperature • Respiration • Pulse rate 	<p>Explain patients clerking</p> <p>Explain dental charting</p> <p>Explain vital signs:</p> <ul style="list-style-type: none"> • Blood pressure • Temperature • Respiration • Pulse rate 	<p>Textbooks</p> <p>Journals</p> <p>Charts</p> <p>Visual Aids</p> <p>Whiteboard</p> <p>Computer</p> <p>Internet</p> <p>Marker</p> <p>Projector</p>	<p>Carry out patients clerking by documenting outcome of patients diagnosis:</p> <ul style="list-style-type: none"> • Patients personal history • Vital signs • Intra Oral Examination • Extra Oral Examination etc. <p>Carry out and document dental charting</p> <p>Carry out and document vital signs:</p> <ul style="list-style-type: none"> • Blood pressure • Temperature • Respiration • Pulse rate 	<p>Guide students to:</p> <p>Carry out patients clerking by documenting outcome of patients diagnosis:</p> <ul style="list-style-type: none"> • Patients personal history • Vital signs • Intra Oral Examination • Extra Oral Examination etc. <p>Carry out and document dental charting</p> <p>Carry out and document vital signs:</p> <ul style="list-style-type: none"> • Blood pressure • Temperature • Respiration • Pulse rate 	<p>Sample Patients folders</p> <p>Vital signs armamentarium</p>

				<ul style="list-style-type: none"> Pulse rate 		
General Objective 3.0: Know the procedures for clinical examination and assessment of the Patient.						
5-8	<p>3.1 Explain clinical examinations</p> <p>3.2 Explain history taking</p> <ul style="list-style-type: none"> Patient biodata Past medical history Past dental history Social history <p>3.3 Explain patient's assessment procedures:</p> <ul style="list-style-type: none"> Extra oral examination Intra oral examination Radiographic examinations etc. <p>3.4 Explain treatment planning after oral assessment</p>	<p>Explain clinical examinations</p> <p>Explain history taking</p> <ul style="list-style-type: none"> Patient biodata Past medical history Past dental history Social history <p>Explain patient's assessment procedures</p> <ul style="list-style-type: none"> Extra oral examination Intra oral examination Radiographic examinations etc. <p>Explain treatment planning after oral assessment</p>	<p>Textbooks</p> <p>Journals</p> <p>Charts</p> <p>Visual Aids</p> <p>Whiteboard</p> <p>Computer</p> <p>Internet</p> <p>Marker</p> <p>Projector</p>	<p>Document findings from the clinical examination procedures</p> <p>Document findings from intra oral and extra oral assessment</p> <p>Carry out treatment planning</p>	<p>Guide students to:</p> <p>Document findings from the clinical examination procedures</p> <p>Document findings from intra oral and extra oral assessment</p> <p>Carry out treatment planning</p>	<p>Patient biodata form</p> <p>Past medical history form</p> <p>Past dental history form</p> <p>Social history form</p>
General Objective 4.0: Know the technique of removing deposits from surfaces of the teeth.						
9-15	<p>4.1 Explain dental deposits:</p> <ul style="list-style-type: none"> Dental plaque Dental calculus 	<p>Explain dental deposits:</p> <ul style="list-style-type: none"> Dental plaque Dental calculus 	<p>Textbooks</p> <p>Journals</p> <p>Charts</p> <p>Visual Aids</p>	<p>Carryout removal dental deposits</p>	<p>Guide students to:</p> <p>Carryout removal dental deposits</p>	<p>Instruments for scaling and polishing</p> <p>Dental unit</p>

	<ul style="list-style-type: none"> Dental stain etc. 	<ul style="list-style-type: none"> Dental stain etc. 	Whiteboard Computer Internet Marker Projector	(scaling and polishing) Carryout Oral Hygiene Instruction	(scaling and polishing) Carryout Oral Hygiene Instruction	
4.2	Explain the technique of removing dental deposits: <ul style="list-style-type: none"> Scaling and polishing Oral hygiene instruction 	Explain the technique of removing dental deposits: <ul style="list-style-type: none"> Scaling and polishing Oral hygiene instruction 				
4.3	Explain the need for next dental visit	Explain the need for next dental visit				

EVALUATION: C.A: 40%

EXAMINATION: 60%

YEAR I

SEMESTER II

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Clinical Practice II	COURSE CODE: DTH 321	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 0
YEAR: I SEMESTER: II	PRE-REQUISITE: DTH 318	PRACTICAL: 3
GOAL: This course is designed to equip students with the knowledge and skills of dental therapy clinical procedures		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Know scaling and polishing 2.0 Know out sub-gingival curettage 3.0 Know taking and processing of X-ray films		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Clinical Practice II		COURSE CODE: DTH 321			CREDIT UNIT: 3	
		CONTACT HOURS: 3			THEORETICAL: 0	
YEAR: I SEMESTER: II		PRE-REQUISITE:			PRACTICAL: 3	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with the knowledge and skills of dental therapy clinical procedures						
General Objective 1.0: Know how to carry out scaling and polishing						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-5				Carryout scaling and polishing	Guide students to: Carryout scaling and polishing	Instruments for scaling and polishing Dental unit
General Objective 2.0: Know how to carry out sub-gingival curettage						
6-10				Carry out sub-gingival curettage	Guide students to: Carry out sub-gingival curettage	Instruments for scaling and polishing Dental unit
General Objective 3.0: Know how to take and process X-ray films						

				Carryout x-ray procedure Process x-ray films Interpret x-ray films	Guide students to: Carryout x-ray procedure Process x-ray films Interpret x-ray films	X-ray machines and it's accessories X-ray films Developing tanks Film hangers
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EVALUATION: CA:

60%

EXAMINATION: 40%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Anaesthesiology	COURSE CODE: DTH 322	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with knowledge and skills of anaesthesiology		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
1.0	Know the objectives of anesthesia.	
2.0	Know the methods of anesthesia.	
3.0	Know anesthetic agents.	
4.0	Know the complications associated with the use of anesthetic agents.	
5.0	Know the special care required for patients before the administration of general anesthesia and post-operative care	

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Anaesthesiology		COURSE CODE: DTH 322			CREDIT UNIT: 2	
		CONTACT HOURS: 2			THEORETICAL: 1	
YEAR: 1	SEMESTER: 11	PRE-REQUISITE:			PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with knowledge and skills of anaesthesiology						
General Objective 1.0: Know the objectives of anaesthesia						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define anaesthesiology. 1.2 State the aim of anaesthesia 1.3 Explain the objectives of anaesthesia <ul style="list-style-type: none"> • Loss of pain • Touch • Temperature • Sensitivity 	Explain anaesthesiology Explain the aims of anaesthesia Explain the objectives of anaesthesia <ul style="list-style-type: none"> • Loss of pain • Touch • Temperature • Sensitivity 	Textbooks Journals Diagrams Whiteboard Computer Internet Marker Projector			
General Objective 2.0: Know the methods of anaesthesia						
5-8	2.1 Describe methods of anaesthesia <ul style="list-style-type: none"> • Local anaesthesia • General anaesthesia 	Explain methods of anaesthesia <ul style="list-style-type: none"> • Local anaesthesia • General anaesthesia 	Textbooks Journals Diagrams Whiteboard Computer Internet	Identify local anaesthesia instruments.	Guide students to: Identify local anaesthesia instruments.	Syringes Needles Spray anaesthetic models

	<p>2.2 Differentiate between local and general anaesthesia</p> <p>2.3 List instruments used in local anaesthesia e.g.:</p> <ul style="list-style-type: none"> • Dental syringes • Hypodermic syringe • Needles <p>2.4 Describe types of administration of local anaesthesia:</p> <ul style="list-style-type: none"> • Topical • Infiltration • Nerve block <p>2.5 Explain the instruments used in general anaesthesia:</p> <ul style="list-style-type: none"> • Boyles machine • EMO machine etc. 	<p>Explain the differences between local and general anaesthesia.</p> <p>Explain instruments used in local anaesthesia e.g.:</p> <ul style="list-style-type: none"> • Dental syringes • Hypodermic syringe • Needles • <p>Explain types of administration of local anaesthesia:</p> <ul style="list-style-type: none"> • Topical • Infiltration • Nerve block <p>Explain the instruments used in general anaesthesia:</p> <ul style="list-style-type: none"> • Boyles machine • EMO machine etc. 	<p>Marker Projector</p>			
General Objective 3.0: Know anaesthetic agents						
9-11	<p>3.1 Define an anaesthetic agent</p> <p>3.2 Explain the role of anaesthetic agent in dental procedures</p>	<p>Explain an anaesthetic agent and its role in dental procedures</p>	<p>Textbooks Journals Drug reference materials Whiteboard</p>	<p>Identify local and general anaesthetic agents in clinical settings</p>	<p>Guide students in Identify local and general anaesthetic agents in clinical settings</p>	<p>Local anaesthetic Samples</p>

	3.2 Explain local anaesthetic agents and their applications	Explain local anaesthetic agents and their applications				General anaesthetic references
	3.3 Explain general anaesthetic agents and their effects	Explain general anaesthetic agents and their effects				
	3.4 State the composition of local anaesthesia	Explain the composition of local anaesthesia				
General Objective 4.0: Know the complications associated with the use of anaesthetic agents						
13-14	4.1 Explain complications of local anaesthesia e.g.: <ul style="list-style-type: none"> Fainting Shock Broken needles 	Explain complications of local anaesthesia e.g.: <ul style="list-style-type: none"> Fainting Shock Broken needles 	Textbooks Medical Journals Computer Marker Whiteboard Projector	Role play to recognize allergic reactions Apply emergency protocols	Guide students to: Role play to recognize allergic reactions Apply emergency protocols	Simulation setup Allergy response materials
	4.2 Explain complications of general anaesthesia: <ul style="list-style-type: none"> Syncope Cyanosis Hypotension. 	Explain complications of general anaesthesia: <ul style="list-style-type: none"> Syncope Cyanosis Hypotension. 				
	4.3 Explain signs of allergic reactions to anaesthetic agents and appropriate responses	Explain signs of allergic reactions to anaesthetic agents and appropriate responses				

General Objective 5.0: Know the special care required for patients before the administration of general anaesthesia and post-operative care						
15	5.1 State the necessary precautions before administering general anaesthesia	Explain necessary precautions before anaesthesia administration	Textbooks Patient care guidelines Counselling resources	Demonstrate pre-anaesthesia counselling techniques	Guide students to: Demonstrate pre-anaesthesia counselling techniques	Counselling models Post-operative care checklist
	5.2 Explain common patient fears related to anaesthesia	Explain common patient fears related to anaesthesia	Whiteboard Projector			
	5.3 Describe counselling methods for patients before undergoing anaesthesia	Explain counselling methods for patients before undergoing anaesthesia				
	5.4 State post-operative care steps for patients under anaesthesia	Explain post-operative care for patients under anaesthesia				

EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Dental Instrumentation II	COURSE CODE: DTH 323	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE: DTH 215	PRACTICAL: 1
GOAL: This course is designed to equip the students with knowledge and skills of uses of advance dental instruments and equipment		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
<ul style="list-style-type: none"> 1.0 Know the use of scalers and the principles of sharpening the instruments 2.0 Know the use of ultrasonic scalers 3.0 Know the instruments used for extraction of deciduous dentition 4.0 Know the instruments required for temporary filling 5.0 Know the instruments required for permanent filling 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Dental Instrumentation II		COURSE CODE: DTH 323		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: I SEMESTER: II		PRE-REQUISITE: DTH 215		PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is d designed to equip the students with knowledge and skills of uses of advance dental instruments and equipment						
General Objective 1.0: Know the use of scalers and the principles of sharpening the instruments						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
	1.1 Define ultrasonic scaler	Explain ultrasonic scaler	Whiteboard	Identify the	Guide students to:	Ultrasonic scalers
	1.2 Explain types of Automated scalers	Explain types of Automated scalers	Marker	ultrasonic scaler	Identify the ultrasonic scaler	
	1.3 Explain the accessories used with the ultrasonic scalars e.g.: interchangeable tips	Explain the accessories used with the ultrasonic scalars e.g.: interchangeable tips	Projector	Identify the accessories used with the ultrasonic scalars	Identify the accessories used with the ultrasonic scalars	Ultrasonic accessories
	1.4 Explain how to operate ultrasonic scaler and its accessories	Explain how to operate ultrasonic scaler and its accessories	Computer	Demonstrate how to operate the ultrasonic scalars	Demonstrate how to operate the ultrasonic scalars	
	1.5 Explain procedure for maintenance of ultrasonic scaler	Explain procedure for maintenance of ultrasonic scaler	Internet	Demonstrate how to maintain the ultrasonic scalars	Demonstrate how to maintain the ultrasonic scalars	
			Journals			
			Textbooks			

	1.6 List the advantages and disadvantages of ultrasonic scaler	Explain the advantages and disadvantages of ultrasonic scaler				
General Objective 3.0: Know the instruments used for extraction of deciduous dentition						
7-9	3.1 Explain instruments for extraction of deciduous dentition e.g forceps 3.2 Explain the types of forceps 3.3 Differentiate between the types of extraction forceps: <ul style="list-style-type: none"> • Lower anterior • Lower posterior • Upper anterior • Upper posterior forceps 3.4 Explain types of elevators 3.5 Differentiate between the types of elevators 3.6 Describe dental syringe and its parts 3.7 Describe sterilization and storage of extraction forceps elevators and the dental syringe	Explain the instruments for extraction of deciduous dentition Explain the types of forceps Explain the differences between the types of extraction forceps: <ul style="list-style-type: none"> • Lower anterior • Lower posterior • Upper anterior • Upper posterior forceps Explain types of elevators Explain the differences between the types of elevators Explain dental syringe and the parts Explain sterilization and storage of extraction forceps elevators and the dental syringe	Whiteboard Marker Projector Computer Textbooks Internet Journals	Identify the instruments for extraction of deciduous dentition Identify the types of extraction forceps Identify the different types of elevators Demonstrate the use of dental syringe Demonstrate sterilization Carryout storage of extraction forceps elevators and the dental syringe	Guide students to: Identify the instruments for extraction of deciduous dentition Identify the types of extraction forceps Identify the different types of elevators Demonstrate the use of dental syringe Demonstrate sterilization Carryout storage of extraction forceps elevators and the dental syringe	Extraction of deciduous dentition

General Objective 4.0: Know the instruments required for temporary filling						
10-12	4.1 Explain the instruments required for temporary filling	Explain the instruments required for temporary filling	Whiteboard Marker Projector Computer Textbooks Journals Internet	Identify the instruments required for temporary filling	Guide students to: Identify the instruments required for temporary filling	Excavators Spatulas Glass slap Tweezers etc.
	4.2 Differentiate between the types of filling instruments e.g.: <ul style="list-style-type: none"> Excavators Spatulas Glass slap Tweezers etc. 	Explain the differences between the types of filling instruments e.g.: <ul style="list-style-type: none"> Excavators Spatulas Glass slap Tweezers etc. 		Demonstrate the procedure for washing, sterilizing and storing of temporary filing instruments	Demonstrate the procedure for washing, sterilizing and storing of temporary filing instruments	
	4.3 Describe sterilization and storage of temporary filling instruments	Explain sterilization and storage of temporary filling instruments				
General Objective 5.0: Know the instruments required for permanent filling						
13-15	5.1 List permanent filling instruments	Explain permanent filling instruments	Whiteboard Marker Projector Computer Textbooks Journals Internet	Identify the instruments required for permanent filling	Guide students to: Identify the instruments required for permanent filling	Amalgam condenser Ball burnisher Carver Examination Set
	5.2 Describe instruments required for permanent filling e.g. contra-angle hand piece	Explain instruments required for permanent filling e.g. contra-angle hand piece		Carry out simple maintenance of the instruments	Carry out simple maintenance of the instruments	
	5.3 Explain simple maintenance of the instruments in 5.1 above	Explain simple maintenance of the instruments in 5.1 above				

EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Oral Pathology	COURSE CODE: DTH 324	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 2
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with knowledge of diseases of the oral cavity		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <p>1.0 Understand developmental disturbances of the jaws, the teeth, and oral soft tissues.</p> <p>2.0 Know oral diseases due to physical agents.</p> <p>3.0 Know oral diseases due to biological agents.</p> <p>4.0 Know oral diseases due to neoplastic changes.</p> <p>5.0 Know oral diseases of unknown origin.</p> <p>6.0 Understand oral manifestations of systemic diseases.</p> <p>7.0 Understand periodontal diseases.</p>		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Oral Pathology			COURSE CODE: DTH 324		CREDIT UNIT: 3	
			CONTACT HOURS: 3		THEORETICAL: 2	
YEAR: I SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with knowledge of diseases of the oral cavity.						
General Objective 1.0: Understand developmental disturbances of the jaws, the teeth, and oral soft tissues						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define developmental disturbances in the oral cavity 1.2 List developmental disturbances affecting the jaws, teeth, and soft tissues 1.3 Explain developmental disturbances under the following: <ul style="list-style-type: none"> • Congenital • Hereditary • Acquired 	Explain developmental disturbances in the oral cavity Explain developmental disturbances affecting the jaws, teeth, and soft tissue Explain developmental disturbances under the following: <ul style="list-style-type: none"> • Congenital • Hereditary • Acquired 	Textbooks Journals Visual Aids Models Whiteboard Marker Internet Computer Project Charts			

General Objective 2.0: Know oral diseases due to physical agents.						
5-6	<p>2.1 Explain oral diseases caused by physical agents:</p> <ul style="list-style-type: none"> • Fractures • Burns • Wounds <p>2.2 Describe effects of attrition, abrasion, and erosion on oral tissues</p> <p>2.3 Explain agents responsible for conditions like:</p> <ul style="list-style-type: none"> • Attrition • Abrasion • Erosion 	<p>Explain causes of oral diseases due to physical agents:</p> <ul style="list-style-type: none"> • Fractures • Burns • Wounds <p>Explain the effects of attrition, abrasion, and erosion on oral tissues</p> <p>Explain agents for these conditions like:</p> <ul style="list-style-type: none"> • Attrition • Abrasion • Erosion 	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Computer</p> <p>Journals</p> <p>Case studies</p> <p>Internet</p> <p>Charts</p>	<p>Identify:</p> <ul style="list-style-type: none"> • Attrition • Abrasion • Erosion in clinical models. 	<p>Guide students to:</p> <p>Identify:</p> <ul style="list-style-type: none"> • attrition • abrasion • Erosion in clinical models. 	<p>Clinical models</p> <p>Simulation tools</p>
General Objective 3.0: Know oral diseases due to biological agents (infections).						
7-9	<p>3.1 Define oral infections caused by biological agents</p> <p>3.2 Explain types of infections caused by:</p> <ul style="list-style-type: none"> • Viruses • Bacteria • Fungi <p>3.3 Describe common oral infections for each in 3.2 above</p>	<p>Explain oral infections caused by biological agents</p> <p>Explain types of infections caused by:</p> <ul style="list-style-type: none"> • Viruses • Bacteria • Fungi <p>Explain common oral infections for each in 3.2 above</p>	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Computer</p> <p>Journals</p> <p>Case studies</p> <p>Internet</p> <p>Charts</p>	<p>Identify symptoms of viral, bacterial, and fungal infections in oral cavity</p>	<p>Guide students to:</p> <p>Identify symptoms of viral, bacterial, and fungal infections in oral cavity</p>	<p>Lab models</p> <p>Microscopes</p> <p>Diagnostic guides</p>

General Objective 4.0: Know oral diseases due to neoplastic changes						
10-11	<p>4.1 Define oral neoplasms</p> <p>4.2 Describe types of oral neoplasms</p> <p>4.3 List common benign and malignant neoplasms e.g.:</p> <ul style="list-style-type: none"> • Benign • Epithelioma • Fibroma • Malignant – • Squamous cell • Carcinoma <p>4.4 Explain characteristic features of neoplasm:</p> <ul style="list-style-type: none"> • Benign neoplasm • Malignant neoplasm 	<p>Explain oral neoplasms</p> <p>Explain types of oral neoplasms</p> <p>Explain common benign and malignant neoplasms e.g.:</p> <ul style="list-style-type: none"> • Benign • Epithelioma • Fibroma • Malignant – • Squamous cell • Carcinoma <p>Explain characteristic features of neoplasm:</p> <ul style="list-style-type: none"> • Benign neoplasm • Malignant neoplasm 	<p>Medical case studies</p> <p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Computer</p> <p>Journals</p> <p>Case studies</p> <p>Internet</p> <p>Charts</p> <p>Visual Aids</p>	<p>Identify benign and malignant neoplasms using lab models and histology slides.</p>	<p>Guide students to:</p> <p>Identify benign and malignant neoplasms using lab models and histology slides.</p>	<p>Histology slides</p> <p>Visual aids</p> <p>Lab models</p>
General Objective 5.0: Know oral diseases of unknown origin						
12	<p>5.1 Define oral diseases of unknown origin</p> <p>5.2 Explain common oral diseases of unknown causes (e.g., aphthous ulcers)</p>	<p>Explain oral diseases of unknown origin</p> <p>Explain common oral diseases of unknown causes (e.g., aphthous ulcers)</p>	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Computer</p> <p>Journals</p> <p>Case studies</p> <p>Internet</p> <p>Charts</p>	<p>Identify clinical signs of oral diseases of unknown origin in patients.</p>	<p>Guide students to:</p> <p>Identify clinical signs of oral diseases of unknown origin in patients.</p>	<p>Diagnostic tools</p> <p>Visual aids</p>

	5.4 Explain clinical signs associated with these conditions	Explain clinical signs associated with these conditions				
General Objective 6.0: Understand oral manifestations of systemic diseases.						
13-14	6.1 Explain oral manifestations of systemic diseases e.g.: <ul style="list-style-type: none"> Blood disorders Hormonal imbalances 6.2 Explain systemic diseases with oral manifestations e.g.: <ul style="list-style-type: none"> Anaemia Leukaemia 6.3 Describe oral signs of nutritional deficiencies and other systemic diseases	Explain oral manifestations of systemic diseases e.g.: <ul style="list-style-type: none"> Blood disorders Hormonal imbalances Explain systemic diseases with oral manifestations e.g.: <ul style="list-style-type: none"> Anaemia Leukaemia Explain oral signs of nutritional deficiencies and other systemic diseases	Atlas Textbooks Whiteboard Marker Projector Computer Journals Case studies Internet Charts	Identify symptoms of systemic diseases in oral examinations Perform case analyses of patients with systemic diseases	Guide students to: Identify symptoms of systemic diseases in oral examinations. Perform case analyses of patients with systemic diseases	Case studies Medical records
General Objective 7.0: Understand periodontal diseases.						
15	7.1 Define periodontal diseases. 7.2 Describe types of periodontal diseases into gingivitis and periodontitis 7.3 Describe the etiology of the 7.2 above	Explain periodontal diseases Explain types of periodontal diseases into gingivitis and periodontitis Explain the etiology of the 7.2 above.	Textbooks Whiteboard Marker Internet Computer Projector Journals Visual Aids Atlas	Identify clinical signs of gingivitis and periodontitis.	Guide students to: Identify clinical signs of gingivitis and periodontitis.	Dental models Visual aids

	7.4 Describe the clinical presentation and progression of periodontal diseases	Explain the clinical presentation of these diseases				
	7.5 State the relationship between gingivitis and periodontitis	Explain the relationship between gingivitis and periodontitis				
	7.6 Define peri-implant	Explain peri-implant				
	7.7 Explain indications for peri-implant	Explain indications for peri-implant				

EVALUATION: CA: 40%
EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Oral Diagnosis and Treatment Planning	COURSE CODE: DTH 325	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide the students with the knowledge and skills in diagnosis and treatment planning		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <p>1.0 Know how to take the medical/dental history</p> <p>2.0 Know examination of oral cavity</p> <p>3.0 Know diagnoses of diseases</p> <p>4.0 Know treatment plan design</p>		

PROGRAMME: NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Oral Diagnosis and Treatment Planning			COURSE CODE: DTH 325		CREDIT UNIT: 2	
			CONTACT HOURS: 2		THEORETICAL: 1	
YEAR: I SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide the students with the knowledge and skills in diagnosis and treatment planning						
General Objective 1.0: Know how to take the medical/dental history						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Explain how to take history including: <ul style="list-style-type: none"> • Presenting complaint • History of present complaint • Medical history • Dental history • Family history etc. 1.2 Explain the importance of documenting medical history 1.3 Explain the potential risks of not taking a complete medical history prior to treatment	Explain how to take history including: <ul style="list-style-type: none"> • Presenting complaint • History of present complaint • Medical history • Dental history • Family history etc. Explain the importance of documenting medical history Explain the potential risks of not taking a complete medical history prior to treatment	Textbooks Whiteboard Marker Internet Computer Projector Journals History forms Charts	Take a patient history, covering dental and medical details	Guide students to: Take a patient history, covering dental and medical details	Medical form

General Objective 2.0: Know examination of the oral cavity						
5-8	2.1 Explain areas of focus during an oral examination: <ul style="list-style-type: none"> • Extraoral Tissues • Intraoral Tissues 2.2 Describe instruments required for an oral examination 2.3 Describe the procedure for examining the mouth	Explain areas of focus during an oral examination: <ul style="list-style-type: none"> • Extraoral Tissues • Intraoral Tissues Explain instruments required for an oral examination Explain the procedure for examining the mouth	Textbooks Whiteboard Marker Internet Computer Projector Journals Charts	Conduct a full oral examination using tools and techniques. Record detailed findings from the examination. Interpret findings based on examination results	Guide student to: Conduct a full oral examination using tools and techniques. Record detailed findings from the examination. Interpret findings based on examination results	Examination instruments Dental mirrors Dental Probe Patient record /forms Dental Model
General Objective 3.0: Know diagnoses of diseases						
9-11	3.1 Define diagnosis 3.2 State the stages of diagnosis: <ul style="list-style-type: none"> • Provisional diagnosis • investigations • Final diagnosis 3.3 Describe the process of making a provisional diagnosis 3.4 List investigations:	Explain diagnosis Explain the stages of diagnosis: <ul style="list-style-type: none"> • Provisional diagnosis • investigations • Final diagnosis Explain the process of making a provisional diagnosis Explain investigations: <ul style="list-style-type: none"> • Radiography 	Textbooks Whiteboard Marker Internet Computer Projector Journals Charts	Perform diagnostic assessments, Interpret results from diagnostic tools and tests. Formulate a provisional and final diagnosis.	Guide student to: Perform diagnostic assessments, Interpret results from diagnostic tools and tests. Formulate a provisional and final diagnosis.	Radiography tools Pulp testers Laboratory reagents

	<ul style="list-style-type: none"> • Radiography • Pulp testing • Laboratory test 	<ul style="list-style-type: none"> • Pulp testing • Laboratory test 				
General Objective 4.0: Know treatment plan design						
12-15	<p>4.1 Define treatment planning</p> <p>4.2 Describe the steps in treatment planning</p> <p>4.3 Describe decision-making in treatment planning</p> <p>4.4 Explain factors that impact treatment decisions:</p> <ul style="list-style-type: none"> • Medical/dental history • Available resources, etc. 	<p>Explain treatment planning</p> <p>Explain the steps in treatment planning</p> <p>Explain decision-making in treatment planning</p> <p>Explain factors that impact treatment decisions:</p> <ul style="list-style-type: none"> • Medical/dental history • Available resources, etc. 	<p>Textbooks</p> <p>Whiteboard</p> <p>Marker</p> <p>Internet</p> <p>Computer</p> <p>Projector</p> <p>Journals</p> <p>Software</p> <p>Charts</p>	<p>Develop a treatment plan based on diagnostic findings</p> <p>Justify treatment decisions based on diagnostic findings</p>	<p>Guide student to:</p> <p>Develop a treatment plan based on diagnostic findings</p> <p>Justify treatment decisions based on diagnostic findings</p>	<p>Treatment plan templates</p> <p>Case records</p>

EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Introduction to Dental Gerontology	COURSE CODE: DTH 326	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with knowledge and skills to diagnose and manage dental issues in older adults		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Know Age-Related Dental Changes 2.0 Know Patient Management Techniques for Elderly Patient 3.0 Know the diagnosis and management of dental Issues in Geriatric Patients 4.0 Understand Geriatric Dental Practices 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Introduction to Dental Gerontology		COURSE CODE: DTH 326		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: I SEMESTER: II		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFICATION: Theoretical And Practical						
GOAL: This course is designed to provide students with knowledge and skills to diagnose and manage dental issues in older adults						
General Objective 1.0: Know Age-Related Dental Changes						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define Geriatric Dentistry 1.2 Explain the importance of Geriatric Dentistry 1.3 Explain common oral health issues in the elderly e.g.: <ul style="list-style-type: none"> • Xerostomia • Root caries • Periodontal disease etc. 1.4 Describe the impact of systemic health	Explain Geriatric Dentistry Explain the importance of Geriatric Dentistry Explain common oral health issues in the elderly e.g.: <ul style="list-style-type: none"> • Xerostomia • Root caries • Periodontal disease etc. Explain the impact of systemic health	Textbook Journals Computer Internet Whiteboard Marker Projector Journals Charts Pictorials Research articles	Identify age-related dental conditions through sample cases Examine case studies to relate systemic conditions to dental issues	Guide students to: Identify age-related dental conditions through sample cases Examine case studies to relate systemic conditions to dental issues	Diagnostic tools Anatomical charts

	conditions on oral health 1.5 Explain age-related anatomical and physiological changes affecting geriatric	conditions on oral health Explain age-related anatomical and physiological changes affecting geriatric				
General Objective 2.0: Know Patient Management Techniques for Elderly Patient						
5-8	2.1 Describe techniques for effective communication with older adults 2.2 Explain special chair-side management considerations 2.3 Explain the role of caregivers in geriatric dentistry 2.4 Explain the importance of interdisciplinary collaboration in managing geriatric patients	Explain techniques for effective communication with older adults Explain special chair-side management considerations Explain the role of caregivers in geriatric dentistry Explain the importance of interdisciplinary collaboration in managing geriatric patients	Textbook Journals Computer Internet Whiteboard Marker Projector Journals Charts Pictorials Clinical guidelines Interdisciplinary practice guidelines	Role-play scenarios focusing on communication and treatment adaptation Develop a care plan involving caregivers and interdisciplinary teams	Guide students to: Role-play scenarios focusing on communication and treatment adaptation Develop a care plan involving caregivers and interdisciplinary teams	Scripts Feedback forms Care plan templates

General Objective 3.0: Know the diagnosis and management of dental Issues in Geriatric Patients						
9-11	<p>3.1 Explain common dental treatments for geriatric patients e.g.:</p> <ul style="list-style-type: none"> • Restorations • Extractions • periodontal treatment <p>3.2 Explain pain management strategies in geriatric dentistry</p> <p>3.3 Explain the implications of pharmacological considerations in treating elderly patients</p> <p>3.4 Explain the importance of preventive care in geriatric dentistry</p>	<p>Explain common dental treatments for geriatric patients e.g.:</p> <ul style="list-style-type: none"> • Restorations • Extractions • periodontal treatment <p>Explain pain management strategies in geriatric dentistry</p> <p>Explain the implications of pharmacological considerations in treating elderly patients</p> <p>Explain the importance of preventive care in geriatric dentistry</p>	<p>Textbooks</p> <p>Journals</p> <p>Computer</p> <p>Internet</p> <p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Journals</p> <p>Charts</p> <p>Pictorials</p>	<p>Evaluate treatment plans for geriatric patients based on individual needs</p> <p>Develop preventive care strategies for geriatric patients</p>	<p>Guide student to:</p> <p>Evaluate treatment plans for geriatric patients based on individual needs</p> <p>Develop preventive care strategies for geriatric patients</p>	<p>Assessment forms</p> <p>Preventive care templates</p> <p>Vital signs apparatus</p> <p>Clinical Thermometer</p> <p>Sphynomano meter</p> <p>Periodontal Probe</p> <p>Stethoscope</p> <p>Weighing scale</p>
General Objective 4.0: Understand Geriatric Dental Practices						
12-14	4.1 Explain the role of technology in	Explain the role of technology in	<p>Textbooks</p> <p>Journals</p> <p>Computer</p>	.	Guide students to:	Case studies

	<p>enhancing geriatric dental care:</p> <ul style="list-style-type: none"> • Tele-dentistry • Phone calls etc. <p>4.2 Explain future trends in geriatric dentistry</p> <p>4.3 Explain the effectiveness of geriatric dental programs and policies</p> <p>4.4 Explain ethical considerations in geriatric dentistry</p>	<p>enhancing geriatric dental care.</p> <ul style="list-style-type: none"> • Tele-dentistry • Phone calls etc. <p>Explain future trends in geriatric dentistry</p> <p>Explain the effectiveness of geriatric dental programs and policies</p> <p>Explain ethical considerations in geriatric dentistry.</p>	<p>Internet Whiteboard Marker Projector Journals Charts Pictorials Analysis reports Ethical guidelines</p>	<p>Visit to Older adult's home</p> <p>Design an evaluation plan for a geriatric dental program.</p>	<p>Visit to Older adult's home</p> <p>Design an evaluation plan for a geriatric dental program</p>	<p>Technology Evaluation forms</p> <p>Evaluation templates</p> <p>Video clips</p>
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EVALUATION: CA: 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Care Of Patient With Special Needs	COURSE CODE: DTH 327	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to equip students with the knowledge and skills required for providing dental care to patients with special needs		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <ul style="list-style-type: none"> 1.0 Know dental needs of patients with special needs 2.0 Know how to provide care modifications 3.0 Know communication techniques 4.0 Know development of a customized dental care plan 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Care of Patient with Special Needs		COURSE CODE: DTH 327			CREDIT UNIT: 2	
		CONTACT HOURS: 2			THEORETICAL: 1	
YEAR: I SEMESTER: II		PRE-REQUISITE:			PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with the knowledge and skills required for providing dental care to patients with special needs.						
General Objective 1.0: Know dental needs of patients with special needs						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Define special needs 1.2 Explain types of special needs conditions in dental care: <ul style="list-style-type: none"> • Physical • Developmental • Cognitive disabilities 1.3 Explain common medical conditions associated with special needs patients that could affect dental treatment	Explain special needs Explain types of special needs conditions in dental care: <ul style="list-style-type: none"> • Physical • Developmental • Cognitive disabilities Explain common medical conditions associated with special needs patients that could affect dental treatment	Textbooks Journals Whiteboard Marker Computer Internet Patient case Medical history forms Charts			

	1.4 Explain medications associated with special needs patients that could affect dental treatment	Explain medications associated with special needs patients that could affect dental treatment				
	1.5 Describe of process the of gathering a detailed medical history on patient specific requirement	Explain of process the of gathering a detailed medical history on patient specific requirement				
General Objective 2.0: Know how to provide care modifications						
5-8	2.1 Explain techniques for handling patients with physical impairment during dental procedures	Explain techniques for handling patients with physical impairment during dental procedures	Textbooks Journals Adaptive dental equipment Catalogues	Practice positioning and stabilizing techniques with special needs patient models	Guide students to: Practice positioning and stabilizing techniques with special needs patient models	Dental chair with stabilizing equipment Adaptive tools
	2.2 Describe pain management for patients with cognitive or developmental disabilities	Explain pain management for patients with cognitive or developmental disabilities	Whiteboard Marker Computer Internet Patient case Charts	Use adaptive equipment to conduct basic dental procedures on simulated patients	Use adaptive equipment to conduct basic dental procedures on simulated patients	
	2.3 Describe equipment and facilities modifications needed for accessible dental care	Explain equipment and facilities modifications needed for accessible dental care				

General Objective 3.0: Know communication techniques						
9-11	3.1 Describe communication strategies for patients with special needs: <ul style="list-style-type: none"> • Hearing • Vision • Speech impairments 	Explain communication strategies for patients with special needs: <ul style="list-style-type: none"> • Hearing • Vision • Speech impairments 	Textbooks Journals Whiteboard Marker Computer Internet Charts	Use communication aids to interact with a simulated patient with sensory impairments	Guide students to: Use communication aids to interact with a simulated patient with sensory impairments	Communication aids Sensory impairment
	3.2 List communication aids required for patients with special needs	Explain communication aids required for patients with special needs		Engage in role-play with caregivers and practice building rapport.	Engage in role-play with caregivers and practice building rapport.	Simulation tools
	3.3 Explain communication methods used to engage caregivers	Explain communication methods used to engage caregivers		Demonstrate cultural sensitivity during interactions.	Demonstrate cultural sensitivity during interactions	
	3.4 Explain cultural sensitivity when working with diverse patients with special needs	Discuss cultural sensitivity when working with diverse patients with special needs				
General Objective 4.0: Know how to develop a customized dental care plan						
12-14	4.1 Outline steps for creating a patient centred dental care plan	Explain steps for creating a patient centred dental care plan	Textbooks Journals Whiteboard Marker	Develop a dental care plan for a	Guide student to: Develop a dental care plan	Sample care plans

	4.2 Explain follow-up and monitoring strategies for patients with chronic conditions	Explain follow-up and monitoring strategies for patients with chronic conditions	Computer Internet Charts	simulated special needs patients Demonstrate handling of emergency scenarios with special needs considerations	for a simulated special needs patients Demonstrate handling of emergency scenarios with special needs considerations	Emergency kits
	4.3 Explain strategies for handling emergency situations specific to special needs patients	Explain strategies for handling emergency situations specific to special needs patients				

EVALUATION: CA: 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
Course: Research Methodology in Dental Therapy	COURSE CODE: DTH 328	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 2
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 0
GOAL: This course is designed to equip students with knowledge of research skills to present research outcomes logically.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Understand the concept of research 2.0 Know the design and planning of the research 3.0 Understand sampling techniques 4.0 Know the use of statistics in research 5.0 Understand the conduct and presentation of research results 6.0 Know the layout of a research report 		

PROGRAMME: National Diploma in Dental Therapy						
COURSE: Research Methodology in Dental Therapy			COURSE CODE: DTH 328	CREDIT UNIT: 2		
			CONTACT HOURS: 2	THEORETICAL: 2		
YEAR: II SEMESTER: I			PRE-REQUISITE:	PRACTICAL: 0		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge of research skills to present research outcomes logically.						
General Objective 1.0 Understand the concept of research						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define Research 1.2 Explain the types of research: <ul style="list-style-type: none"> • Historical • Descriptive • Analytical • Experimental etc. 1.3 Explain the aims of research 1.4 Define research methodology 1.5 Explain the methods of conducting research: <ul style="list-style-type: none"> • Experimental 	Explain Research Explain the types of research: <ul style="list-style-type: none"> • Historical • Descriptive • Analytical • Experimental etc. Explain the aims of research Explain research methodology Explain the methods of conducting research: <ul style="list-style-type: none"> • Experimental 	Textbooks Whiteboard Marker Multimedia Projector Computer Laptops Internet Lecture notes Charts			

	1.6 Explain how to identify a field of research	Explain how to identify a field of research				
	1.7 Explain how to formulate a research title	Explain how to formulate a research title				
	1.8 Describe the sources of relevant Information in the research field: <ul style="list-style-type: none"> • Museums • Markets • Hospitals • libraries • Internet, etc. 	Explain the sources of relevant Information in the research field: <ul style="list-style-type: none"> • Museums • Markets • Hospitals • libraries • Internet, etc. 				
	1.9 Explain index card system for research title	Explain index card system for research title				
	1.10 Explain how to review related literature on the subject matter of research	Explain how to review related literature on the subject matter of research				
General Objective 2.0: Know the design and planning of research						
4-6	2.1 Explain research design	Explain research design	Journals			
	2.2 Explain methods applied in research design e.g. <ul style="list-style-type: none"> • Intervention • Non-intervention studies, • Questionnaire, 	Explain methods applied in research design e.g. <ul style="list-style-type: none"> • Intervention • Non-intervention studies, 	Whiteboard Marker Multimedia Projector Computer Internet			

	<ul style="list-style-type: none"> • Interview, • Home visits • Observation etc. 	<ul style="list-style-type: none"> • Questionnaire, • Interview, • Home visits • Observation etc. 	Lecture notes Charts			
	2.3 Explain the merits and demerits of various research designs	Explain the merits and demerits of various research designs				
	2.4 Explain the methods most appropriate for each research (project) type	Explain the methods most appropriate for each research (project) type				
General Objective 3.0: Understand sampling techniques						
7-8	3.1 Define sampling	Explain sampling	Journals			
	3.2 Explain types of sampling techniques: <ul style="list-style-type: none"> • Probability • Non-probability 	Explain types of sampling techniques: <ul style="list-style-type: none"> • Probability • Non-probability 	Whiteboard Marker Multimedia Projector Computer Internet			
	3.3 Describe the merits and demerits of each sampling technique in 3.2	Explain the merits and demerits of each sampling technique in 3.2	Lecture notes Charts			
	3.4 Describe how to calculate the sample size	Explain how to calculate the sample size				
General Objective 4.0: Know the use of statistics in research						
9-10	4.1 Define basic statistics.	Explain basic statistics	Journals Whiteboard			
	4.2 Explain basic statistical tests	Explain basic statistical tests	Marker			

	4.3 Explain the characteristics of each of the tests in 4.2	Explain the characteristics of each of the tests in 4.2	Multimedia Projector Computer			
	4.4 Explain the suitability of each of the tests in 4.2	Explain the suitability of each of the tests in 4.2	Internet Lecture notes Charts			
General Objective 5.0: Understand the conduct and presentation of research results						
11-12	5.1 Explain how to carry out the research using any research design	Explain how to carry out the research experiment using any research design	Journals Whiteboard Marker Multimedia			
	5.2 Explain how to collect data for the research in 5.1	Explain how to collect data for the experiment in 5.1	Projector Computer Internet			
	5.3 Explain how to analyze the data using appropriate methods	Explain how to analyze the data using appropriate methods	Lecture notes Charts			
	5.4 Explain how to interpret the results obtained from the research	Explain how to interpret the results obtained from the research				
	5.5 Explain how to write up the report of the research conducted	Explain how to write up the report of the research conducted				
General Objective 6.0: Know the layout of a research report						
13-14	6.1 Define research report layout	Explain the research report layout	Journals. Whiteboard Marker			

	6.2 List research report layout 6.3 Explain each research report layout	Explain research report layout Explain each research report layout	Multimedia Projector Computer Internet Lecture notes Charts			
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EVALUATION: C.A: 30%
EXAMINATION: 70%

YEAR II**SEMESTER I**

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Contemporary Dentistry	COURSE CODE: DTH 411	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 1
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 2
GOAL: This course is designed to provide students with the knowledge and skills of digital dentistry.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the Basics of Digital Dentistry 2.0 Know Digital Tools in Dental Therapy 3.0 Understand Teledentistry and Remote Dental Monitoring (RDM) 4.0 Know Robotics in Dental Procedures 5.0 Understand Wearable Dental Devices and Patient Health Monitoring 6.0 Know Artificial Intelligence (AI) in Dental Diagnosis and Treatment Planning 7.0 Understand Laser Therapy in Dental Treatment		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Contemporary Dentistry		COURSE CODE: DTH 411		CREDIT UNIT: 3		
		CONTACT HOURS: 3		THEORETICAL: 1		
YEAR: II SEMESTER: I		PRE-REQUISITE:		PRACTICAL: 2		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with the knowledge and skills of digital dentistry.						
General Objective 1.0: Understand the Basics of Digital Dentistry						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Define digital dentistry 1.2 List components of digital dentistry 1.3 Explain the basics of CAD/CAM technology.	Explain digital dentistry Explain components of digital dentistry Explain CAD/CAM systems and their applications.	Textbooks Journal Whiteboard Marker Internet Computer Projector Charts	Observe demonstrations of CAD/CAM systems in operation	Guide students to: Observe demonstrations of CAD/CAM systems in operation.	CAD/CAM system Projector 3D models
General Objective 2.0: Know Digital Tools in Dental Therapy						
3-5	2.1 List digital tools used in dentistry: <ul style="list-style-type: none"> • CAD /CAM • Intra-Oral Scanner • 3D Printer • AI • Intra-Oral Camera • Dental Laser 	Explain digital tools used in dentistry: <ul style="list-style-type: none"> • CAD /CAM • Intra-Oral Scanner • 3D Printer • AI • Intra-Oral 	Textbooks Whiteboard Marker Computer Internet Projector Charts	Practice digital impressions and 3D imaging on models Visit to a clinic using digital impression kits and 3D models	Guide students to: Practice digital impressions and 3D imaging on models Visit to a clinic using digital impression kits and 3D models	Audio visuals Online materials

	<ul style="list-style-type: none"> Digital X-ray etc. 	<ul style="list-style-type: none"> Camera Dental Laser Digital X-ray etc. 	Digital impression kits			
	2.2 Explain the role of 3D imaging in diagnosis	Explain the role of 3D imaging in diagnosis.				
	2.3 Explain digital impression-taking techniques	Explain digital impression-taking techniques				
General Objective 3.0: Understand Teledentistry and Remote Dental Monitoring (RDM)						
6-7	3.1 Define teledentistry	Explain teledentistry	Textbooks Whiteboard	Simulate a teledentistry consultation session	Guide students to: Simulate a teledentistry consultation session	Simulation software Telemedicine resources
	3.2 Define Remote Dental Monitoring (RDM)	Explain Remote Dental Monitoring (RDM)	Marker Computer Internet			
	3.3 Explain applications of teledentistry	Explain applications of teledentistry	Projector Charts Case studies, telemedicine resources			
	3.4 Explain the advantages and disadvantages of remote patient monitoring	Explain the advantages and disadvantages of remote patient monitoring				
General Objective 4.0: Know Robotics in Dental Procedures						
8	4.1 Define Robotics in dentistry	Explain Robotics in dentistry	Textbooks Journal Whiteboard	Interact with robotics simulations.	Guide students to: Interact with robotics simulations.	Robotic dental simulations
	4.2 Describe the basics of robotics in dentistry	Explain the basics of robotics in dentistry	Marker Internet Computer			Videos

	4.3 State types of robotic systems used in dental practices.	Explain types of robotic systems used in dental practices.	Projector Charts Robotics in dentistry			
General Objective 5.0: Understand Wearable Dental Devices and Patient Health Monitoring						
9-10	5.1 Define Dental wearable devices 5.2 Explain the function of wearable devices in dental health 5.3 Explain the benefits and limitations of wearable devices	Explain Dental wearable devices Explain the function of wearable devices in dental health Explain the benefits and limitations of wearable devices	Textbooks Journal Whiteboard Marker Internet Computer Projector Charts Articles	Test functionalities of dental wearable devices on models. Visit to a clinic using wearable dental device, instruction manuals	Guide students to: Test functionalities of dental wearable devices on models. Visit to a clinic using wearable dental device, instruction manuals	Wearable dental devices
General Objective 6.0: Know Artificial Intelligence (AI) in Dental Diagnosis and Treatment Planning						
11	6.1 Define artificial intelligence in dental applications 6.2 Explain AI-based tools for dental diagnosis and planning 6.3 Explain the importance of AI in dental practice	Explain artificial intelligence in dental applications Explain AI-based tools for dental diagnosis and planning Explain the importance of AI in dental practice	Textbooks Journal Whiteboard Marker Internet Computer Projector Charts	Use AI software for diagnostic exercises on dental case.	Guide students to: Use AI software for diagnostic exercises on dental case.	AI software Diagnostic tools Case studies

General Objective 7.0: Understand Laser Therapy in Dental Treatment						
12-13	7.1 Define laser therapy	Explain laser therapy	Textbooks	Observe laser therapy	Guide students to:	Laser therapy
	7.2 Explain the use of lasers in treating dental conditions	Explain the use of lasers in treating dental conditions.	Journal Whiteboard Marker Internet	demonstrations in dental treatments.	Observe laser therapy demonstrations in dental treatments	Safety equipment
	7.3 Explain conditions treatable with laser therapy	Explain conditions treatable with laser therapy	Computer Projector Charts	Visit to a clinic using Laser therapy, safety equipment	Visit to a clinic using Laser therapy, safety equipment	
	7.4 Explain the adverse effects of laser therapy	Explain the adverse effects of laser therapy				

EVALUATION: CA: 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Oral Health Education and Promotion	COURSE CODE: DTH 412	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to equip student with knowledge and skills on oral health education and promotion.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Understand basic concepts of Oral Health 2.0 Understand Oral health behavior and attitudes 3.0 Understand the prevention and control of Oral diseases 4.0 Understand Oral Health Education 5.0 Understand Community Health Programs 6.0 Understand the use of technology in Oral Health Promotion 		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Oral Health Education and Promotion		COURSE CODE: DTH 412		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: II SEMESTER: I		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip student with knowledge and skills on oral health education and promotion.						
General Objective 1.0: Understand basic concepts of Oral Health						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
	1.1 Define oral health	Explain oral health	Whiteboard Marker Projector Textbooks Computer Journals Internet Charts			
	1.2 Define oral health education	Explain oral health education				
	1.3 Explain the importance of oral health	Explain the importance of oral health				
	1.4 Explain common oral diseases: • Dental caries • Periodontitis • Oral cancers etc.	Explain common oral diseases: • Dental caries • Periodontitis • Oral cancers etc.				
	1.5 Explain the epidemiology of oral diseases	Explain the epidemiology of oral diseases				

General Objective 2.0: Understand Oral health behaviour and attitude						
2-4	<p>2.1 Explain health behavior theories e.g.:</p> <ul style="list-style-type: none"> • Health Belief Model • Social Cognitive Theory etc. <p>2.2 Explain the factors influencing oral health behaviors</p> <p>2.3 Explain Cultural influences on oral health practices</p>	<p>Explain health behavior theories e.g.:</p> <ul style="list-style-type: none"> • Health Belief Model • Social Cognitive Theory etc. <p>Explain the factors influencing oral health behaviors</p> <p>Explain cultural influences on oral health practices</p>	<p>Whiteboard Marker Projector Textbooks Computer Journals Internet Charts</p>			
General Objective 3.0: Understand the prevention and control of Oral Diseases						
5-7	<p>3.1 Explain the strategies for oral disease prevention</p> <p>3.2 Explain the role of fluoride and dental sealants on Oral disease prevention</p> <p>3.3 Explain the importance of oral hygiene practices on oral disease prevention:</p> <ul style="list-style-type: none"> • Brushing • Flossing • Mouthwash etc. <p>3.2 Explain the impact of Nutrition on oral health</p>	<p>Explain the strategies for oral disease prevention</p> <p>Explain the role of fluoride and dental sealants on Oral disease prevention</p> <p>Explain the importance of oral hygiene practices on oral disease prevention:</p> <ul style="list-style-type: none"> • Brushing • Flossing • Mouthwash etc. <p>Explain the impact of Nutrition on oral health</p>	<p>Whiteboard Marker Projector Textbooks Computer Journals Internet Charts</p>	<p>Demonstrate the following</p> <ul style="list-style-type: none"> • Brushing techniques • Flossing 	<p>Guide students to:</p> <p>Demonstrate the following</p> <ul style="list-style-type: none"> • Brushing techniques • Flossing 	<p>Toothbrush Dental model floss</p>

General Objective 4.0: Understand Oral Health Education						
8-10	<p>4.1 Explain the Principles of health education</p> <p>4.2 Describe how to design effective educational programs</p> <p>4.3 Explain adult and child learning principles</p> <p>4.5 Describe how to create educational materials:</p> <ul style="list-style-type: none"> • Brochures • Posters • Digital content etc. 	<p>Explain the Principles of health education</p> <p>Explain how to design effective educational programs</p> <p>Explain adult and child learning principles</p> <p>Explain how to create educational materials:</p> <ul style="list-style-type: none"> • Brochures • Posters • Digital content etc. 	<p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Textbooks</p> <p>Computer</p> <p>Journals</p> <p>Internet</p> <p>Charts</p>	<p>Design an oral health educational program:</p> <ul style="list-style-type: none"> • School oral health awareness • Market oral health awareness • Community oral awareness • Water fluoridation <p>Demonstrate Role play to illustrate oral health education</p> <p>Create educational materials:</p> <ul style="list-style-type: none"> • Brochures • Posters • Digital content etc. 	<p>Guide students to:</p> <p>Design an oral health educational program:</p> <ul style="list-style-type: none"> • School oral health awareness • Market oral health awareness • Community oral awareness • Water fluoridation <p>Demonstrate Role play to illustrate oral health education</p> <p>Create educational materials:</p> <ul style="list-style-type: none"> • Brochures • Posters • Digital content etc. 	<p>Public address systems</p> <p>Posters</p> <p>Flyers</p> <p>Banners</p>

General Objective 5.0: Understand Community Oral Health programs						
11-13	<p>5.1 Explain community health initiatives with regards to Oral health Education</p> <p>5.2 Explain partnerships on Oral Health Education with:</p> <ul style="list-style-type: none"> • Schools • Health agencies • Community • Organizations <p>5.3 Explain strategies for outreach and engagement for Oral Health Education and Promotion</p> <p>5.4 Explain how to evaluate community Oral health education programs</p>	<p>Explain community health initiatives with regards to Oral health Education</p> <p>Explain partnerships on Oral Health Education with:</p> <ul style="list-style-type: none"> • Schools • Health agencies • Community • Organizations <p>Explain strategies for outreach and engagement for Oral Health Education and Promotion</p> <p>Explain how to evaluate community Oral health education programs</p>	<p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Textbooks</p> <p>Computer</p> <p>Journals</p> <p>Internet</p> <p>Charts</p>	<p>Partner with a school, health facility or community for Oral Health Education, Promotion and campaign</p>	<p>Guide students to:</p> <p>Partner with a school, health facility or community for Oral Health Education, Promotion and campaign</p>	<p>Posters</p> <p>Public address systems</p> <p>Flyers</p> <p>Banners</p>
General Objective 6.0: Understand the importance of technology in Oral health Promotion						
14-15	<p>6.1 Explain the use of social media and digital platforms for education</p> <p>6.2 Explain the impact of tele-dentistry on dental care</p> <p>6.3 Explain the innovations in oral health education tools:</p>	<p>Explain the use of social media and digital platforms for education</p> <p>Explain the impact of tele-dentistry on dental care</p>	<p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Textbooks</p> <p>Computer</p> <p>Journals</p> <p>Internet</p> <p>Charts</p>			

	<ul style="list-style-type: none"> • Apps • Online courses etc. 	Explain the innovations in oral health education tools: <ul style="list-style-type: none"> • Apps • Online courses etc. 				
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EVALUATION: CA: 40%
 EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Dental Office Management	COURSE CODE: DTH 413	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 2
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 0
GOAL: This course is designed to provide students with knowledge and skills of dental office management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0: Know Office Management of Personnel, Material, and Equipment 2.0: Know the Appropriate Management Techniques in the Dental Office 3.0: Know economic Management of the Dental Office 4.0: Understand Store-Keeping Procedures and Requirements 		

PROGRAMME: HIGHER NATIONAL DIPLOMA IN DENTAL THERAPY						
COURSE: Dental Office Management		COURSE CODE: DTH 413			CREDIT UNIT: 2	
		CONTACT HOURS: 2			THEORETICAL: 1	
YEAR: II SEMESTER: I		PRE-REQUISITE:			PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with knowledge and skills of dental office management.						
General Objective 1.0: Know Office Management of Personnel, Material, and Equipment						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
5-8	1.1 Define Office management	Explain Office management	Textbooks Journals Whiteboard			
	1.2 Outline the principles of Office management	Explain the principles of Office management	Marker Projector Internet Computer			
	1.3 State the factors for selecting candidates for dental therapist position	Explain the factors for selecting candidates for dental therapist position	Manual Catalogues			
	1.4 Describe deployment and evaluation of staff within a dental office	Explain deployment and evaluation of staff within a dental office				

	1.5 Define procurement	Explain procurement				
	1.6 Explain the process for procurement	Explain the process for procurement				
General Objective 2.0: Know the Appropriate Management Techniques in the Dental Office						
9-11	2.1 State management techniques	Explain management techniques	Textbooks Journals Whiteboard	Prepare a sample budget and estimate for typical dental office operations	Guide the student to: Prepare a sample budget and estimate for typical dental office operations	Financial planning software Worksheets
	2.2 Explain the applications of management techniques in dental office	Explain the applications of management techniques in dental office	Marker Projector Internet Computer Manual Catalogues			
	2.3 Explain roles and responsibilities of dental office staff	Explain roles and responsibilities of dental office staff				
	2.4 Explain budget preparation in dental office	Explain budget preparation in dental office				
General Objective 3.0: Know economic management of the Dental Office						
	3.1 Define economic management	Explain economic management	Textbooks Journals Whiteboard			
	3.2 Explain the importance of economic management in a dental office	Explain the importance of economic	Markers Computer Internet Projector			

	<p>3.3 Explain factors in economic management:</p> <ul style="list-style-type: none"> • Income Tracking • Expenditure Analysis • Budgeting <p>3.4 Explain the impact of economic factors on office management</p>	<p>management in a dental office</p> <p>Explain factors in economic management:</p> <ul style="list-style-type: none"> • Income Tracking • Expenditure Analysis • Budgeting <p>Explain the impact of economic factors on office management</p>	<p>Diagrams</p> <p>Guidelines</p>			
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General Objective 4.0: Understand Store-Keeping Procedures and Requirements

12-15	<p>4.1 Define Storekeeping</p> <p>4.2 Describe the requirements for dental store management</p> <p>4.3 Explain store-keeping processes</p> <p>4.4 Explain dental forms for store management and stock-taking</p>	<p>Explain Storekeeping</p> <p>Explain the requirements for dental store management.</p> <p>Explain store-keeping processes</p> <p>Explain dental forms for store</p>	<p>Textbooks</p> <p>Journals</p> <p>Whiteboard</p> <p>Markers</p> <p>Computer</p> <p>Internet</p> <p>Projector</p> <p>Diagrams</p> <p>Guidelines</p> <p>Manuals</p>	<p>Carryout the following:</p> <ul style="list-style-type: none"> • Stock-taking • Inventory Control • Issuing Supply • Shelf-life monitoring • Storage 	<p>Guide the student to: Carryout the following:</p> <ul style="list-style-type: none"> • Stock-taking • Inventory Control • Issuing Supply • Shelf-life monitoring • Storage 	<p>Store management software</p> <p>Supply checklists</p> <p>Inventory software</p> <p>Issue forms</p> <p>Stock forms</p> <p>Inventory tools</p> <p>Expiration logs</p>
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	4.5 Describe the process of monitoring dental materials' shelf-life and their storage	management and stock-taking Explain the process of monitoring dental materials' shelf-life and their storage				Storage containers
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EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY			
COURSE: Periodontology	COURSE CODE: DTH 414	CREDIT UNIT:	2
	CONTACT HOURS: 2	THEORETICAL:	1
YEAR: II	SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with the knowledge and skills of causes and management of periodontal diseases			
GENERAL OBJECTIVES: On completion of this course, the students should be able to:			
<ul style="list-style-type: none"> 1.0 Understand the basic concepts of Periodontology 2.0 Know the anatomy of the periodontal tissue 3.0 Know the Patho-physiology of periodontal disease 4.0 Know how to diagnose periodontal disease 5.0 Understand the prevention of periodontal disease 6.0 Know the surgical procedures of the periodontium 7.0 Understand Periodontal Medicine 8.0 Understand the special considerations in periodontology 			

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Periodontology		COURSE CODE: DTH 414		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 1		
YEAR: II SEMESTER: I		PRE-REQUISITE:		PRACTICAL: 1		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with the knowledge and skills of the causes and management of periodontal diseases						
General Objective 1.0: Understand the basic concepts of Periodontology						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
	1.1 Define periodontal disease 1.2 Outline the Historical perspectives of periodontal care 1.3 Explain the classification of periodontal disease	Explain periodontal disease Explain the historical perspectives of periodontal care Explain the classification of periodontal disease	Whiteboard Marker Projector Textbooks Computer Journals			
General Objective 2.0: Know the anatomy of the periodontal tissue						
2-3	2.1 Describe the structure of the periodontium <ul style="list-style-type: none"> • Gingiva • Periodontal ligament • Alveolar bone • Cementum 	Explain the structure of the periodontium <ul style="list-style-type: none"> • Gingiva • Periodontal ligament • Alveolar bone • Cementum 	Whiteboard Marker Projector Textbooks Computer Journals	Identify the periodontium on mouth models	Guide students to:	Transparent models

	2.2 Describe the Blood supply of the periodontium	Explain the Blood supply of the periodontium		Identify the Blood supply of the periodontium on mouth models	Identify the Blood supply of the periodontium on mouth models	
	2.3 Describe the Nerve supply of the periodontium	Explain the Nerve supply of the periodontium		Identify the nerve supply of the periodontium on mouth models	Identify the nerve supply of the periodontium on mouth models	
General Objective 3.0: Know the Patho-physiology of periodontal tissue						
4-5	3.1 Describe the etiology of periodontal diseases: <ul style="list-style-type: none"> • Microbial factors (bacterial pathogenesis) • Host response 	Explain the etiology of periodontal diseases: <ul style="list-style-type: none"> • Microbial factors (bacterial pathogenesis) • Host response 	Whiteboard Marker Projector Textbooks Computer Journals Charts			
	3.2 Explain the role of biofilm in periodontal disease	Explain the role of biofilm in periodontal disease				
	3.3 Describe the mechanisms of periodontal tissue destruction	Explain the mechanisms of periodontal tissue destruction				
General Objective 4.0: Know how to diagnose periodontal disease						
6-7	4.1 Describe how to examine periodontal tissues <ul style="list-style-type: none"> • Probing depth measurement 	Explain how to examine periodontal tissues <ul style="list-style-type: none"> • Probing depth measurement 	Whiteboard Marker Projector Textbooks	Examine the probing depth, attachment level	Guide students to: Examine the probing depth, attachment level	Periodontal probe

	<ul style="list-style-type: none"> • Attachment level assessment • Gingival recession 	<ul style="list-style-type: none"> • Attachment level assessment • Gingival recession 	Computer Journals	and gingival recession.	and gingival recession.	CPITN probe
4.2 Describe how to radiographically evaluate periodontal health	Explain how to radiographically evaluate periodontal health			Examine X-ray film of the periodontium	Examine X-ray film of the periodontium	Mouth mirror X-ray Film
4.3 Explain the classification and stages of periodontal diseases	Explain the classification and stages of periodontal diseases			Examine cases of Periodontal disease in the clinic	Examine cases of Periodontal disease in the clinic	X-ray Machine
4.4 Describe the use of Community Periodontal Index of Treatment Needs (CPITN)	Explain the use of Community Periodontal Index of Treatment Needs (CPITN)			Demonstrate the use of CPITN probe	Demonstrate the use of CPITN probe	
4.5 Describe the use of Oral Hygiene Index (OHI)	Explain the use of Oral Hygiene Index (OHI)			Demonstrate the use of OHI	Demonstrate the use of OHI	
4.6 Describe the use of Simplified Oral Hygiene Index (OHI-S)	Explain the use of Simplified Oral Hygiene Index (OHI-S)			Demonstrate the use of OHI-S	Demonstrate the use of OHI-S	
				Demonstrate the use of PDI	Demonstrate the use of PDI	

	4.7 Describe the use of Periodontal Disease Index (PDI)	Explain the use of Periodontal Disease Index (PDI)				
General Objective 5.0: Understand the prevention of periodontal disease						
8-9	5.1 Describe the importance of oral hygiene and patient education 5.2 Describe Non-surgical periodontal therapy <ul style="list-style-type: none"> • Scaling and root planning • Antimicrobial therapies • Behavioral interventions 5.3 Describe Periodontal maintenance therapy	Explain the importance of oral hygiene and patient education Explain Non-surgical periodontal therapy <ul style="list-style-type: none"> • Scaling and root planning • Antimicrobial therapies • Behavioral interventions Explain Periodontal maintenance therapy	Whiteboard Marker Projector Textbooks Computer Journals Charts	Demonstrate how to give Oral hygiene Instructions Perform Scaling and Polishing Perform Periodontal maintenance therapy	Guide students to: Demonstrate how to give Oral hygiene Instructions Perform Scaling and Polishing in the clinic Perform Periodontal maintenance therapy in the clinic	Hand scaling instruments Ulstrasonic scaler Mouth mirror Periodontal probe Charts
General Objective 6.0: Know the surgical procedures of the periodontium						
10-11	6.1 State the indications for periodontal surgery 6.2 State the types of surgical procedures <ul style="list-style-type: none"> • Flap surgery • Bone grafting and regenerative procedures 	Explain the indications for periodontal surgery Explain the types of surgical procedures <ul style="list-style-type: none"> • Flap surgery • Bone grafting and regenerative procedures 	Whiteboard Marker Projector Textbooks Computer Journals Charts			

	<ul style="list-style-type: none"> • Guided tissue regeneration • Crown lengthening procedures 	<ul style="list-style-type: none"> • Guided tissue regeneration • Crown lengthening procedures 				
	6.3 Describe Post-operative care	Explain Post-operative care				
	6.4 Describe post-operative complications	Explain post-operative complications				
General Objective 7.0: Understand Periodontal Medicine						
12-13	<p>7.1 State the systemic conditions associated with periodontal disease:</p> <ul style="list-style-type: none"> • Diabetes • Cardiovascular disease • Respiratory disease etc. <p>7.2 Describe the relationship between periodontal disease and other health conditions</p> <p>7.3 Describe the psychological aspects of periodontal disease management</p>	<p>Explain the systemic conditions associated with periodontal disease:</p> <ul style="list-style-type: none"> • Diabetes • Cardiovascular disease • Respiratory disease etc <p>Explain the relationship between periodontal disease and other health conditions</p> <p>Explain the psychological aspects of periodontal disease management</p>	<p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Textbooks</p> <p>Computer</p> <p>Journals</p> <p>Charts</p>			

General Objective 8.0: Understand the special considerations in periodontology						
14-15	<p>8.1 Describe the Management of periodontal disease in special populations:</p> <ul style="list-style-type: none"> • Pregnant women • Elderly • Immuno-compromised patients etc. <p>8.2 State the Periodontal implications of dental implants</p> <p>8.3 Describe Periodontal disease and its impact on oral-systemic health</p>	<p>Explain the Management of periodontal disease in special populations</p> <ul style="list-style-type: none"> • Pregnant women • Elderly • Immunocompromised patients etc. <p>Explain the Periodontal implications of dental implants</p> <p>Explain Periodontal disease and its impact on oral-systemic health</p>	<p>Whiteboard Marker Projector Textbooks Computer Journals</p>			

EVALUATION: CA: 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA IN DENTAL THERAPY		
COURSE: Cariology	COURSE CODE: DTH 415	CREDIT UNIT: 2
	CONTACT HOURS: 2	THEORETICAL: 1
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 1
GOAL: This course is designed to provide students with the knowledge and skills to management of dental caries.		
<p>GENERAL OBJECTIVES: On completion of this course, the students should be able to:</p> <ol style="list-style-type: none"> 1.0 Understand the basic concepts of Dental Caries 2.0 Know the Anatomy and Histology of Dental Caries 3.0 Know the Etiology of Dental Caries 4.0 Understand the Diagnosis and classification of Caries 5.0 Understand Caries Risk Assessment 6.0 Understand the Prevention of Dental Caries 7.0 Know the Management of Dental Caries 8.0 Understand the Relationship between Special Populations and Cariology 		

PROGRAMME: HIGHER NATIONAL DIPLOMA IN DENTAL THERAPY						
COURSE: Cariology		COURSE CODE: DTH 415			CREDIT UNIT: 2	
		CONTACT HOURS: 2			THEORETICAL: 1	
YEAR: II SEMESTER: I		PRE-REQUISITE:			PRACTICAL: 1	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with the knowledge and skills to management of dental caries.						
General Objective 1.0: Understand the basic concepts of Dental Caries						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
	1.1 Define Dental Caries	Explain Dental Caries	Whiteboard Marker Projector Textbooks Computer Journals Charts			
	1.2 Explain the significance of the study of Dental Caries in dentistry	Explain the significance of the study of Dental Caries in dentistry				
	1.3 Explain the history of the treatment of dental caries	Explain the history of the treatment of dental caries				
	1.4 Explain how Dental Caries is a global health issue	Explain how Dental Caries is a global health issue				
General Objective 2.0: Know the Anatomy and Histology of Dental Caries						
2-3	2.1 Describe the tooth structure: <ul style="list-style-type: none"> • Enamel • Dentin • Pulp • Cementum 	Explain the tooth structure: <ul style="list-style-type: none"> • Enamel • Dentin • Pulp • Cementum 	Whiteboard Marker Projector Textbooks Computer Journals			

	2.2 Describe the histological features of carious dentine and enamel	Explain the histological features of carious dentine and enamel	Charts			
	2.3 Explain the role of saliva and tooth structure in caries susceptibility	Explain the role of saliva and tooth structure in caries susceptibility				
General Objective 3.0: Know the Etiology of Dental Caries						
4-5	3.1 Explain the multifactorial nature of caries development: <ul style="list-style-type: none"> • Host, • Agent, • Environment • Time 	Explain the multifactorial nature of caries development: <ul style="list-style-type: none"> • Host • Agent • Environment • Time 	Whiteboard Marker Projector Textbooks Computer Journals Charts			
	3.2 Explain the role of bacteria (e.g., Streptococcus mutans, Lactobacillus species etc.) in caries formation	Explain the role of bacteria (e.g., Streptococcus mutans, Lactobacillus species etc.) in caries formation				
	3.3 Explain the impact of dietary factors like carbohydrates and sugar on oral microbiota	Explain the impact of dietary factors like carbohydrates and sugar on oral microbiota				
		Explain the role of protective factors like				

	3.4 Explain the role of protective factors like fluoride, saliva and oral hygiene against Dental Caries	fluoride, saliva and oral hygiene against Dental Caries				
General Objective 4.0: Understand the Diagnosis and classification of Dental Caries						
6-7	4.1 Describe the clinical examination techniques for caries detection 4.2 Describe the radiographic examination 4.3 Explain the classification systems for dental caries 4.4 Explain the differences between acute and chronic caries	Explain the clinical examination techniques for caries detection Explain the radiographic examination Explain the classification systems for dental caries Explain the differences between acute and chronic caries	Whiteboard Marker Projector Textbooks Computer Journals Charts	Examine Dental Caries Interpret radiograph of Dental Caries	Guide students to: Examine Dental Caries Interpret radiograph of Dental Caries	Tooth model Extracted Carious tooth Carious tooth in a patients mouth X-ray film Viewing box
General Objective 5.0: Understand Caries Risk Assessment						
8-9	5.1 Describe the techniques for assessing caries risk: <ul style="list-style-type: none"> • Cariogram • Simplified Oral Hygiene Index(OHI-S) • Dental X-rays • Laser fluorescence tools e.g DIAGNOdent 2095 and DIAGNOdent pen. • Acid-producing 	Explain techniques for assessing caries risk: <ul style="list-style-type: none"> • Cariogram • Simplified Oral Hygiene Index(OHI-S) • Dental X-rays • Laser fluorescence tools e.g DIAGNOdent 2095 and DIAGNOdent pen. • Acid-producing 	Whiteboard Marker Projector Textbooks Computer Journals Charts	Identify Caries risk assessment techniques Calculate DMFT	Guide students to: Identify Caries risk assessment techniques Calculate DMFT	Cariogram DIAGNOdent 2095 DIAGNOdent pen Dental X-ray films

	<p>bacteria test</p> <p>5.2 Explain caries risk factors e.g.:</p> <ul style="list-style-type: none"> • Lifestyle • Dietary habits • Medical history etc. <p>5.3 Explain the implementation of risk assessment in clinical practice for prevention and management</p> <p>5.4 Explain how Decayed Missing Filled Teeth (DMFT) is used in dentistry</p>	<p>Bacteria test</p> <p>Explain caries risk factors e.g.:</p> <ul style="list-style-type: none"> • Lifestyle • Dietary habits • Medical history etc. • <p>Explain the implementation of risk assessment in clinical practice for prevention and management</p> <p>Explain how Decayed Missing Filled Teeth (DMFT) is used in dentistry</p>				<p>Dental X-ray machine</p> <p>Mouth model</p> <p>Mouth mirror</p>
General Objective 6.0: Understand the Prevention of Dental Caries						
10-11	<p>6.1 Explain the principles of caries prevention:</p> <ul style="list-style-type: none"> • Primary • Secondary • Tertiary <p>6.2 Describe the role of fluoride and its mechanisms in caries prevention</p>	<p>Explain the principles of caries prevention:</p> <ul style="list-style-type: none"> • Primary • Secondary • Tertiary <p>Explain the role of fluoride and its mechanisms in caries prevention</p>	<p>Whiteboard</p> <p>Marker</p> <p>Projector</p> <p>Textbooks</p> <p>Computer</p> <p>Journals</p> <p>Charts</p>			

	6.3 Explain the significance of dietary counseling in caries prevention	Explain the significance of dietary counseling in caries prevention				
	6.4 Explain the significance of oral hygiene practices in caries prevention	Explain the significance of oral hygiene practices in caries prevention				
	6.5 Enumerate public health strategies to decrease caries prevalence	Explain public health strategies to decrease caries prevalence				
General Objective 7.0: Know the Management of Dental Caries						
12-13	7.1 Explain Non-invasive management techniques for dental caries e.g.: <ul style="list-style-type: none"> • Sealants • Fluoride • Varnishes etc. 	Explain Non-invasive management techniques for dental caries e.g.: <ul style="list-style-type: none"> • Sealants • Fluoride • Varnishes etc. 	Whiteboard Marker Projector Textbooks Computer Journals Charts	Identify materials for caries management e.g.: <ul style="list-style-type: none"> • Sealants • Composite • Amalgam • Glass Ionomer Cement etc 	Guide students to: Identify materials for caries management e.g.: <ul style="list-style-type: none"> • Sealants • Composite • Amalgam • Glass Ionomer Cement etc 	sealants, composite, amalgam, Glass Ionomer Cement (GIC)
	7.2 State Minimally invasive approaches to caries treatment	Explain minimally invasive approaches to caries treatment				
	7.3 State traditional restorative techniques for carious lesions e.g.: <ul style="list-style-type: none"> • Amalgam • Composite etc. 	Explain traditional restorative techniques for carious lesions e.g.: <ul style="list-style-type: none"> • Amalgam • Composite etc. 				
	7.4 State advanced materials and technologies in caries management e.g.:	Explain advanced materials and				

	<ul style="list-style-type: none"> • Glass ionomer cement • Resin infiltration etc. 	technologies in caries management e.g.: <ul style="list-style-type: none"> • Glass ionomer cement • Resin infiltration etc. 				
General Objective 8.0: Understand the relationship between Special populations and Cariology						
14-15	8.1 Explain caries in pediatric patients: <ul style="list-style-type: none"> • Unique considerations • Management strategies 8.2 Explain Caries in older adults: <ul style="list-style-type: none"> • Challenges • Treatment solutions 8.3 Explain how socio-cultural factors affect caries prevalence and management	Explain caries in pediatric patients: <ul style="list-style-type: none"> • Unique considerations • Management strategies Explain Caries in older adults: <ul style="list-style-type: none"> • Challenges • Treatment solutions Explain how socio-cultural factors affect caries prevalence and management	Whiteboard Marker Projector Textbooks Computer Journals Charts			

EVALUATION: CA 40%

EXAMINATION: 60%

PROGRAMME: HIGHER NATIONAL DIPLOMA IN DENTAL THERAPY		
COURSE: Clinical Practice III	COURSE CODE: DTH 416	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 0
YEAR: II SEMESTER: I	PRE-REQUISITE: DTH 321	PRACTICAL: 3
GOAL: This course is designed to equip students with Knowledge and skills of dental therapy clinical procedures		
GENERAL OBJECTIVES: On completion of this course, the students should be able to:		
1.0 Know application of fissure sealants 2.0 Know topical application of fluoride 3.0 Know scaling and polishing 4.0 Know sub-gingival curettage 5.0 Know temporary filling		

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Clinical Practice III			COURSE CODE: DTH 416		CREDIT UNIT: 3	
			CONTACT HOURS: 3		THEORETICAL: 0	
YEAR: II SEMESTER: I			PRE-REQUISITE:		PRACTICAL: 3	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with Knowledge and skills of dental therapy clinical procedures						
General Objective 1.0: Know application of fissure sealants						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4				Identify fissure sealants	Guide students to: Identify fissure sealants	Fissure sealants
				Identify the materials/ instruments for fissure sealants	Identify the materials/ instruments for fissure sealants	Etching agent Curing light
				Carryout fissure sealants procedure	Carryout fissure sealants procedure	
General Objective 2.0: Know topical application of fluoride						
				Identify the materials/instruments for topical fluoride application	Guide students to: Identify the materials/instruments for topical fluoride application	Fluoride gel Brush Fluoride trays
				Carryout the procedures for the application of fluoride	Carryout the procedures for the application of fluoride	Gauze

						Saliva injector Timer
General Objective 3.0: Know scaling and polishing						
9-11				Carryout scaling and polishing	Guide students to: Carryout scaling and polishing	Instruments for scaling and polishing Dental unit
General Objective 4.0: Know sub-gingival curettage						
13-14				Carryout sub-gingival curettage	Guide students to: Carryout sub-gingival curettage	Instruments for scaling and polishing Dental unit
General Objective 5.0: Know to temporary filling						
				Identify the material/ instruments for Carryout temporary filling	Guide students to: Identify the material/ instruments for Carryout temporary filling	Temporary filling materials Instruments for temporary filling

EVALUATION: CA: 60%

EXAMINATION: 40%

YEAR II**SEMESTER II**

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Ethics and Professional Practice in Dental Therapy	COURSE CODE: DTH 421	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 3
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 0
GOAL: This course is designed to equip students with knowledge of ethical principles and professionalism in dental practice.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand Core Ethical Principles in Dentistry 2.0 understand Ethical Decision-Making in Dental Practice 3.0 Understand Legal and Regulatory Frameworks in Dentistry 4.0 Know Ethical Practice and Professionalism in Dentistry		

PROGRAMME: HIGHER NATIONAL DIPLOMA						
COURSE: Dental Ethics and Professionalism			COURSE CODE: DTH 421		CREDIT UNIT: 3	
			CONTACT HOURS: 3		THEORETICAL: 3	
YEAR: II SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 0	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge of ethical principles and professionalism in dental practice.						
General Objective 1.0: Understand Core Ethical Principles in Dentistry						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-3	1.1 Define dental ethics and professionalism 1.2 Define consent 1.3 Explain types of consent: • Implied Consent • Surrogate consent • Informed Consent etc. 1.4 Explain the importance of patient confidentiality and informed consent 1.5 Outline professional conduct standards as defined by dental bodies	Explain dental ethics and professionalism Explain consent Explain types of consent: • Implied Consent • Surrogate consent • Informed Consent etc. Explain the importance of patient confidentiality and informed consent Explain professional conduct standards as defined by dental bodies	Whiteboard Marker Projector Textbooks Computer Journals Charts Guidelines Journals Regulatory documents			

	1.6 Explain the consequences of ethical misconduct	Explain the consequences of ethical misconduct				
General Objective 2.0: understand Ethical Decision-Making in Dental Practice						
4-7	2.1 Explain ethical decision-making	Explain ethical decision-making	Textbooks Journals Internet			
	2.2 Explain factors in evaluating ethical dilemmas	Explain factors in evaluating ethical dilemmas	Computer Projector Whiteboard Marker			
	2.3 Explain how personal values and cultural perspectives influence ethical decisions	Explain how personal values and cultural perspectives influence ethical decisions	Charts			
	2.4 Explain ethical dilemmas in dental practice	Explain ethical dilemmas in dental practice				
General Objective 3.0: Understand Legal and Regulatory Frameworks in Dentistry						
8-10	3.1 Describe dental laws and regulations	Explain dental laws and regulations	Textbooks Journals Internet			
	3.2 Explain the role of professional organizations in maintaining ethical standards	Explain the role of professional organizations in maintaining ethical standards	Computer Projector Whiteboard Marker Charts			
	3.3 Explain the importance of continuing education in maintaining professionalism	Explain the importance of continuing education in maintaining professionalism				

	3.4 Explain the reporting mechanisms for ethical violations	Explain the reporting mechanisms for ethical violations				
General Objective 4.0: Know Ethical Practice and Professionalism in Dentistry						
11-14	4.1 Explain strategies for promoting ethical practices in dental settings	Explain strategies for promoting ethical practices in dental settings	Textbooks Journals Internet Computer Projector Whiteboard Marker Charts			
	4.2 Explain the importance of mentoring in fostering professionalism	Explain the importance of mentoring in fostering professionalism				
	4.3 Explain the impact of technology on ethical dental practices	Explain the implications of technology on ethical practices				
	4.4 Explain future trends in dental ethics and professionalism	Explain future trends in dental ethics and professionalism				

EVALUATION: CA 30%

EXAMINATION: 70%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY		
COURSE: Clinical Practice IV	COURSE CODE: DTH 422	CREDIT UNIT: 3
	CONTACT HOURS: 3	THEORETICAL: 0
YEAR: II SEMESTER: II	PRE-REQUISITE: DTH 416	PRACTICAL: 3
GOAL: This course is designed equip students with the skills of dental therapy clinical procedures		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: <ul style="list-style-type: none"> 1.0 Know teeth-whitening procedure 2.0 Know the procedure for paedo-extraction 3.0 Know scaling and polishing 4.0 know sub-gingival curettage 		

PROGRAMME: HIGHER NATIONAL DIPLOMA						
COURSE: Clinical Practice IV			COURSE CODE: DTH 422		CREDIT UNIT: 3	
			CONTACT HOURS: 3		THEORETICAL: 0	
YEAR: II SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 3	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed equip students with the skills of dental therapy clinical procedures						
General Objective 1.0: Know teeth-whitening procedure						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-4				Identify the materials/instruments for teeth-whitening Carryout the procedures for the application of teeth-whitening	Guide students to: Identify the materials/instruments for teeth-whitening Carryout the procedures for the application of teeth-whitening	Materials for teeth-whitening Instruments for teeth-whitening
General Objective 2.0: Understand the procedure for paedo-extraction						
5-8				Identify paedo-extraction Identify the materials/instruments needed for paedo-extraction	Guide students to: Identify paedo-extraction Identify the materials/instruments needed for paedo-extraction	Instruments need for paedo-extraction

				Demonstrate the process of administering anaesthesia	Demonstrate the process of administering anaesthesia	
				Demonstrate the process of paedio-extraction	Demonstrate the process of paedio-extraction	
General Objective 3.0: Know scaling and polishing						
9-11				Carryout perform scaling and polishing	Guide students to: Carryout perform scaling and polishing	Instruments for scaling and polishing Dental unit
General Objective 4.0: Know sub-gingival curettage						
13-14				Carryout sub-gingival curettage	Guide students to: Carryout sub-gingival curettage	Instruments for scaling and polishing Dental unit

EVALUATION: CA 30%

EXAMINATION: 70%

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY			
COURSE: Communicable and Non-Communicable Diseases	COURSE CODE: DTH 423	CREDIT UNIT:	2
	CONTACT HOURS: 2	THEORETICAL:	2
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL:	0
GOAL: This course provides students with the knowledge of communicable and non-communicable diseases			
GENERAL OBJECTIVES: On completion of this course, the students should be able to:			
1.0: Understand the Concepts Communicable and Non-Communicable Diseases			
2.0: Understand the Causes and Transmission of Communicable Diseases			
3.0: Understand Risk Factors and Prevention for Non-Communicable Diseases			
4.0: Understand Methods for Controlling and Managing Communicable Diseases			
5.0: Understand Prevention, Diagnosis, and Management of Non-Communicable Diseases			

PROGRAMME: HIGHER NATIONAL DIPLOMA DENTAL THERAPY						
COURSE: Communicable and Non-Communicable Diseases		COURSE CODE: DTH 423		CREDIT UNIT: 2		
		CONTACT HOURS: 2		THEORETICAL: 2		
YEAR: II SEMESTER: II		PRE-REQUISITE:		PRACTICAL: 0		
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course provides students with the knowledge of communicable and non-communicable diseases						
General Objective 1.0: Know the Concepts of Communicable and Non-Communicable Diseases						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Define communicable and non-communicable diseases 1.2 List types of communicable and non-communicable diseases 1.3 Explain the differences in the etiology and transmission of communicable and non-communicable diseases	Explain communicable and non-communicable diseases Explain types of communicable and non-communicable diseases Explain the differences in the etiology and transmission of communicable and non-communicable diseases	Textbooks Whiteboard Journals Markers Computer Internet Projector Charts			
General Objective 2.0: Understand the Causes and Transmission of Communicable Diseases						
3-5	2.1 Explain causative agents of communicable diseases: <ul style="list-style-type: none"> • Bacteria • Viruses • Parasites etc. 	Explain causative agents of communicable diseases: <ul style="list-style-type: none"> • Bacteria • Viruses • Parasites etc. 	Textbooks Whiteboard Journals Markers Computer Internet			

	<p>2.2 Describe modes of transmission:</p> <ul style="list-style-type: none"> • Airborne • Waterborne • Vector-borne • Direct contact etc. <p>2.3 Explain the factors that influence the spread of communicable diseases</p>	<p>Explain modes of transmission:</p> <ul style="list-style-type: none"> • Airborne • Waterborne • Vector-borne • Direct contact etc. <p>Explain the factors that influence the spread of communicable diseases</p>	<p>Projector Charts WHO reports</p>			
General Objective 3.0: Understand Risk Factors and Prevention for Non-Communicable Diseases						
6-8	<p>3.1 List risk factors for non-communicable diseases</p> <p>3.2 Describe the importance of early detection and regular screening for non-communicable diseases</p> <p>3.3 Explain lifestyle changes for prevention of non-communicable diseases</p>	<p>Explain risk factors for non-communicable diseases</p> <p>Explain the importance of early detection and regular screening for non-communicable diseases</p> <p>Explain lifestyle changes for prevention of non-communicable diseases</p>	<p>Textbooks Whiteboard Journals Markers Computer Internet Projector Charts WHO guidelines Screening protocols</p>			
General Objective 4.0: Know Methods for Controlling and Managing Communicable Diseases						
9-11	<p>4.1 List methods for controlling communicable diseases:</p> <ul style="list-style-type: none"> • Vaccination • Quarantine 	<p>Explain methods for controlling communicable diseases:</p> <ul style="list-style-type: none"> • Vaccination 	<p>Textbooks Whiteboard Journals Markers</p>			

	<ul style="list-style-type: none"> Sanitation <p>4.2 Describe the importance of hygiene and sanitation in disease prevention</p> <p>4.3 Explain global and national efforts in combating communicable diseases.</p>	<ul style="list-style-type: none"> Quarantine sanitation <p>Explain the importance of hygiene and sanitation in disease prevention</p> <p>Explain global and national efforts in combating communicable diseases.</p>	<p>Computer Internet Projector Charts WHO reports Vaccination charts Health guidelines</p>			
General Objective 5.0: Understand Prevention, Diagnosis, and Management of Non-Communicable Diseases						
12-15	<p>5.1 Explain non-communicable diseases and their symptoms:</p> <ul style="list-style-type: none"> Diabetes Hypertension Cancer etc. <p>5.2 Explain diagnostic tools and methods for non-communicable diseases</p> <p>5.3 Describe management strategies for non-communicable diseases</p>	<p>Explain non-communicable diseases and their symptoms:</p> <ul style="list-style-type: none"> Diabetes Hypertension Cancer etc. <p>Explain diagnostic tools and methods for non-communicable diseases</p> <p>Explain management strategies, for non-communicable diseases</p>	<p>Textbooks Whiteboard Journals Markers Computer Internet Projector Charts Health journals</p>			

EVALUATION: CA 30%

EXAMINATION: 70%

PRACTICAL MANUAL FOR HND DENTAL THERAPY

<p>Medical Emergencies DTH 311</p>	<ol style="list-style-type: none">1. Take medical history of a patient2. Role-play activities for handling high-risk patients3. Identify essential drugs for patients with medical emergencies4. Demonstrate proper use of emergency devices and equipment5. Simulation<ul style="list-style-type: none">• Cardiopulmonary Resuscitation (CPR)• Positioning• Clear of the air way6. Record a complete emergency response :<ul style="list-style-type: none">• Pre-documentation• On-site documentation• Post-documentation7. Write an emergency report8. Demonstrate record-keeping practice9. Role play medical team collaboration
<p>Primary Oral Health Care DTH 312</p>	<ol style="list-style-type: none">1. Conduct oral examinations in a community setting2. Identify dental issues, with a focus on plaque and gingivitis identification.3. Conduct community oral screenings.4. Identify dental plaque, calculus, and caries in the oral cavity.5. Carryout community-oriented oral health education session6. Conduct a survey in a community to gather epidemiological data on oral diseases.7. Collect epidemiological data from a selected community.8. Analyze the data.9. Design community based oral health programme10. Carryout implementation of BPOC

<p>Paedodontics DTH 314</p>	<ol style="list-style-type: none"> 1. Identify the periodontium on mouth models 2. Identify the Blood supply of the periodontium on mouth models 3. Identify the Nerve supply of the periodontium on mouth models 4. Examine the probing depth, attachment level and gingival recession. 5. Examine X-ray film of the periodontium 6. Examine cases of Periodontal disease in the clinic 7. Demonstrate the use of CPITN probe 8. Demonstrate the use of OHI 9. Demonstrate the use of OHI-S 10. Demonstrate the use of PDI 11. Demonstrate how to give Oral hygiene Instructions 12. Perform Scaling and Polishing 13. Perform Periodontal maintenance therapy
<p>Introduction to Orthodontics DTH 315</p>	<ol style="list-style-type: none"> 1. Identify facial profiles 2. Sketch facial profiles 3. Draw different classes of malocclusions 4. Identify malrelations and malpositions of teeth. 5. Draw malrelationship of 2.1 6. Identify components of orthodontic appliances.
<p>Dental Radiography II DTH 316</p>	<ol style="list-style-type: none"> 1. Identify the component of the x-ray machine 2. Demonstrate steps in x-ray production Identify potential hazards during operation 3. Identify types of dental films. 4. Demonstrate the use of dental films 5. Perform the different radiographic techniques (periapical, bite-wing, occlusal) on models. 6. Practice film processing and identify any necessary corrections during development.

	<ol style="list-style-type: none"> 7. Locate anatomical landmarks on actual radiographs and practice identifying each. 8. Identify pathological features 9. Differentiate restorative materials in radiographs. 10. Identify faults on radiographic films 11. Demonstrate the correct techniques to minimize faults in radiographic interpretation
<p>Dental Care of Hospital Patients DTH 317</p>	<ol style="list-style-type: none"> 1. Identify common dental ailments in the clinic 2. Demonstrate counselling techniques in delivering oral hygiene practice 3. Demonstrate nursing procedures under instructor supervision.
<p>Clinical Practice I DTH 318</p>	<ol style="list-style-type: none"> 1. Familiarize with the setting up of the dental clinic 2. Identify equipment in the dental clinic 3. Identify sanitation kits for the clinic 4. Identify disinfectants for cleaning 5. Carry out cleaning of the dental unit 6. Carry out sterilization of the dental instruments 7. Carry out patients clerking by documenting outcome of patients diagnosis: <ul style="list-style-type: none"> • Patients personal history • Vital signs • Intra Oral Examination • Extra Oral Examination etc. 8. Carry out and document dental charting 9. Carry out and document vital signs: <ul style="list-style-type: none"> • Blood pressure • Temperature

	<ul style="list-style-type: none"> • Respiration • Pulse rate <p>10. Document findings from the clinical examination procedures</p> <p>11. Document findings from intra oral and extra oral assessment</p> <p>12. Carry out treatment planning</p> <p>13. Carryout removal dental deposits (scaling and polishing)</p> <p>14. Carryout Oral Hygiene Instruction</p>
Clinical Practice II DTH 321	<ol style="list-style-type: none"> 1. Carryout scaling and polishing 2. Carry out sub-gingival curettage 3. Carryout x-ray procedure 4. Process x-ray films 5. Interpret x-ray films
Anesthesiology DTH 322	<ol style="list-style-type: none"> 1. Identify local anesthesia instruments. 2. Identify local and general anesthetic agents in clinical settings. 3. Role playing to recognize allergic reactions 4. Apply emergency protocols. 5. Demonstrate pre-anesthesia counseling techniques. <p>Apply post-operative care measures for simulated patients.</p>
Dental Instrumentation II DTH 323	<ol style="list-style-type: none"> 1. Identify the surfaces of the instruments 2. Identify the areas of application 3. Demonstrate how to sharpen the instruments 4. Identify the ultrasonic scaler 5. Identify the accessories used with the ultrasonic scalars 6. Demonstrate how to operate the ultrasonic scalars. 7. Demonstrate how to maintain the ultrasonic scalars 8. Identify the instruments for extraction of deciduous dentition 9. Identify the various types of extraction forceps 10. Identify the different types of elevators 11. Demonstrate the use of dental syringe 12. Demonstrate sterilization

	<ol style="list-style-type: none"> 13. Carryout storage of extraction forceps elevators and the dental syringe 14. Identify the instruments required for temporary filling 15. Demonstrate the procedure for washing, sterilizing and storing of temporary filing instruments 16. Identify the instruments required for permanent filling 17. Carry out simple maintenance of the instruments
<p>Oral Pathology DTH 324</p>	<ol style="list-style-type: none"> 1. Identify: <ul style="list-style-type: none"> • attrition • abrasion • Erosion in clinical models 2. Identify symptoms of viral, bacterial, and fungal infections in oral cavity. 3. Identify benign and malignant neoplasms using lab models and histology slides. 4. Identify clinical signs of oral diseases of unknown origin in patients. 5. Identify symptoms of systemic diseases in oral examinations. 6. Perform case analyses of patients with systemic diseases. 7. Identify clinical signs of gingivitis and periodontitis.
<p>Oral Diagnosis and Treatment Planning DTH 325</p>	<ol style="list-style-type: none"> 1. Take a patient history, covering dental, and medical details. 2. Conduct a full oral examination using tools and techniques. 3. Record detailed findings from the examination. 4. Interpret findings based on examination results 5. Perform diagnostic assessments 6. Interpret results from diagnostic tools and tests. 7. Formulate a provisional and final diagnosis. 8. Develop a treatment plan based on diagnostic findings 9. Justify treatment decisions based on diagnostic findings

<p>Introduction to Dental Gerontology DTH 326</p>	<ol style="list-style-type: none"> 1. Identify age-related dental conditions through sample cases 2. Examine case studies to relate systemic conditions to dental issues 3. Role-play scenarios focusing on communication and treatment adaptation 4. Develop a care plan involving caregivers and interdisciplinary teams 5. Evaluate treatment plans for geriatric patients based on individual needs 6. Develop preventive care strategies for geriatric patients 7. Visit to Older adult's home 8. Design an evaluation plan for a geriatric dental program.
<p>Care of Patient with special needs DTH 327</p>	<ol style="list-style-type: none"> 1. Practice positioning and stabilizing techniques with special needs patient models. 2. Use adaptive equipment to conduct basic dental procedures on simulated patients 3. Use communication aids to interact with a simulated patient with sensory impairments. 4. Engage in role-play with caregivers and practice building rapport. 5. Demonstrate cultural sensitivity during interactions. 6. Develop a dental care plan for a simulated special needs patient. 7. Demonstrate handling of emergency scenarios with special needs considerations.
<p>Contemporary Dentistry DTH 411</p>	<ol style="list-style-type: none"> 1. Observe demonstrations of CAD/CAM systems in operation. 2. Practice digital impressions and 3D imaging on models. 3. Visit to a clinic using digital impression kits and 3D models 4. Simulate a teledentistry consultation session 5. Interact with robotics simulations. 6. Test functionalities of dental wearable devices on models.

	<ol style="list-style-type: none"> 7. Visit to a clinic using wearable dental device, instruction manuals 8. Use AI software for diagnostic exercises on dental case. 9. Observe laser therapy demonstrations in dental treatments. 10. Visit to a clinic using Laser therapy, safety equipment
<p>Oral Health Education and Promotion DTH 412</p>	<ol style="list-style-type: none"> 1. Demonstrate the following <ul style="list-style-type: none"> • Brushing techniques • Flossing 2. Design an oral health educational program e.g.: <ul style="list-style-type: none"> • School oral health awareness • Market oral health awareness • Community oral awareness • Water fluoridation 3. Demonstrate Role play to illustrate oral health education 4. Create educational materials such as <ul style="list-style-type: none"> • Brochures • Posters • Digital content etc 5. Partner with a school, health facility or community for Oral Health Education, Promotion and campaign.
<p>Dental Office Management DTH 413</p>	<ol style="list-style-type: none"> 1. Prepare a sample budget and estimate for typical dental office operations. 2. Carryout the following: <ul style="list-style-type: none"> • Stock-taking • Inventory Control • Issuing Supply • Shelf life monitoring • Storage

<p>Periodontology DTH 414</p>	<ol style="list-style-type: none"> 1. Identify the periodontium on mouth models 2. Identify the Blood supply of the periodontium on mouth models 3. Identify the Nerve supply of the periodontium on mouth models 4. Clinically examine the probing depth, attachment level and gingival recession. 5. Examine X-ray film of the periodontium 6. Examine cases of Periodontal disease in the clinic 7. Demonstrate the use of CPITN probe 8. Demonstrate the use of OHI 9. Demonstrate the use of OHI-S 10. Demonstrate the use of PDI 11. Demonstrate how to give Oral hygiene Instructions 12. Perform Scaling and Polishing in the clinic 13. Perform Periodontal maintenance therapy in the clinic
<p>Cariology DTH 415</p>	<ol style="list-style-type: none"> 1. Examine Dental Caries 2. Interpret radiograph of Dental Caries 3. Identify Caries risk assessment techniques: <ul style="list-style-type: none"> • Cariogram • Simplified Oral Hygiene Index(OHI-S) • Dental X-rays • Laser fluorescence tools e.g DIAGNOdent 2095 and DIAGNOdent pen. • Acid-producing Bacteria test 4. Calculate DMFT 5. Identify materials for caries management e.g.: <ul style="list-style-type: none"> • Sealants • Composite • Amalgam • Glass Ionomer Cement etc.

<p>Clinical Practice III DTH 416</p>	<ol style="list-style-type: none"> 1. Identify fissure sealants 2. Identify the materials/ instruments for fissure sealants 3. Carryout fissure sealants procedure 4. Identify the materials/instruments for topical fluoride application 5. Carryout the procedures for the application of fluoride 6. Carryout scaling and polishing 7. Carryout sub-gingival curettage 8. Identify the material/ instruments for 9. Carryout temporary filling
<p>Clinical Practice IV DTH 422</p>	<ol style="list-style-type: none"> 1. Identify the materials/instruments for teeth-whitening 2. Carryout the procedures for the application of teeth-whitening 3. Identify paedo-extraction 4. Identify the materials/instruments needed for paedo-extraction 5. Demonstrate the process of administering anesthesia 6. Demonstrate the process of paedo-extraction 7. Carryout perform scaling and polishing 8. Carryout sub-gingival curettage

LIST OF MINIMUM RESOURCES**GENERAL LABORATORY**

1	Biology/Anatomy/ Histology/Pathology
2	Chemistry/Nutrition/Physiology
3	Physics
4	Photo/Audio Visual Studio and Dark Room

DENTAL THERAPY EQUIPMENT

S/N	EQUIPMENT	QUANTITY
1	Abrasives	1 bucket
2	Adaptive tools	5 sets
3	Anatomical charts	Assorted
4	Anatomical model of head and neck	2
5	Anatomical Models	2
6	Anesthetic Models	2
7	Amalgamator	2
8	Amalgam condenser	10
9	Arkansas stone	5
10	Articulator	2
11	Atlas	Assorted
12	Automated mixers	2
13	Automated sharpening instruments	1 set
14	Autoclaves (Digital)	2
15	Ball burnisher	10
16	Bandages	Assorted
17	Bristle brush	Assorted
18	Brush holder	Assorted

19	Cabinets	Assorted
20	Calliper	6
21	Caries probe	10
22	Carver (Lecron)	30
23	Carving Instruments	2 sets
24	Carving Wax	5 packs
25	Casting models	10
26	Charts	Assorted
27	Check list	Assorted
28	Chemical addictive	Assorted
29	Chewing sticks	Assorted
30	Chisel	5
31	Clinical thermometer	30
32	Clinical models	Assorted
33	College tweezers	30
34	Contra-angled hand piece	10
35	Communication aids	Assorted
36	Compressor	10
37	Cotton wool	Assorted
38	CPITN probe	15
39	Culture media	Assorted
40	Curing light	2
41	Curettes	30
42	Cup	Assorted
43	Dental films	Assorted
44	Dental Model	Assorted
45	Dental prosthetics	Assorted
46	Dental Unit	10
47	Denture brush	Assorted

48	Developing tank	2
49	Diagnostic guides	Assorted
50	Diagnostic tools	Assorted
51	Disinfectants	Assorted
52	Disposal containers	Assorted
53	Disposable syringe	Assorted
54	Drury scaler	30 pieces
55	Dry heat sterilizer	1
56	Dry heat oven	1
57	Electronic toothbrush	5
58	Emergency Forms	Assorted
59	Emergency Kits	3
60	Enema syringe	5
61	Etching agents	Assorted
62	Excavators	30
63	Extraction Forceps (Deciduous) Upper Anterior Teeth	30
64	Extraction Forceps (Deciduous) Upper Posterior Teeth	30
65	Extraction Forceps (Deciduous) Lower Anterior Teeth	30
66	Extraction Forceps (Deciduous) Lower Posterior Teeth	30
67	Face mask	Assorted
68	Fillers	Assorted
69	Film holder	10
70	Fine excavator	30
71	Fine Scalers	30
72	First aid box	5
73	Fixing solution	Assorted
74	Fluoride gel	Assorted
75	Fluoride trays	10
76	Floss (Dental)	Assorted

77	Gauze	Assorted
78	General anesthetic references	Assorted
79	Glass Ionomer cement (GIC)	5
80	Glass slab	20
81	Gross Scalars	Assorted
82	Handpieces (fast)	5
83	Histology slides	Assorted
84	Hoe Scalars	30
85	Human Skeleton	1
86	Hunt syringe	Assorted
87	Hydrogel	Assorted
88	Hydrogen peroxide	Assorted
89	Instruments/ materials for temporary filling	1 set
90	Interdens	Assorted
91	Jacquette	30
92	Laboratory Models	1
93	Lead apron	2
94	Lead shield	1
95	Leaded wall	
96	Local Anesthetic samples	Assorted
97	Lubricating oil	Assorted
98	Materials for teeth whitening	Assorted
99	Mannequin	Assorted
101	Manual toothbrush	Assorted
102	Medical Emergency Kit	5
103	Microscope	5
104	Micro style oil	Assorted
105	Mixing Bowl	12
106	Mixing Spatula	12

107	Mouth mirror	30
108	Mouth wash agents	Assorted
109	Needles	Assorted
110	Normal saline	Assorted
111	Nursing care plan	Assorted
112	Orthodontics appliances	Assorted
113	Oxygen cylinder	2
114	Oxygen mask	Assorted
115	Pamphlets	Assorted
116	Periodontal probe	30
117	Phantom Head	15
118	Plaster dressing materials	Assorted
119	Polishing strip	Assorted
120	Plaster of Paris (POP)	1 Drum
121	Port Polishers	Assorted
122	Posters	Assorted
123	Processing tray	10
124	PPE	Assorted
125	Presentation kit	Assorted
126	Prosthetic materials	Assorted
127	Public address system	Assorted
128	Pulp tester	10
129	Pumice Projector	1 Drum
130	Radiation monitoring devices	1
131	Radiographic images	Assorted
132	Reagents	Assorted
133	Restorative materials (conservative)	Assorted
134	Robotic dental simulation	Assorted
135	Root Elevators	30

136	Rubber Dam Kits	
137	Safety box	1 Packet
138	Sample emergency forms	Assorted
139	Sample feedback forms	Assorted
140	Sample of deposit	Assorted
141	Sample patients folders	Assorted
142	Sample standing order ICOH/WHO	Assorted
143	Sample survey forms	Assorted
144	Scrubbing brushes	5
145	Fissure Sealant	Assorted
146	Self-developing films	Assorted
147	Sensory Impairment	Assorted
148	Simulation tools	Assorted
149	Skull skeleton	1
150	Slides	Assorted
151	Software (Dental)	Assorted
152	Solvents	Assorted
153	Spot Lamp	30
154	Spatula	30
155	Stabilizing equipment	10
156	Stainless kidney dish	30
157	Chemical Sterilization (Agents)	Assorted
158	Stethoscope	30
159	Storage box	Assorted
160	Surgical gloves	Assorted
161	Suture Materials	
162	Sphygmomanometer	10
163	Syringes	Assorted
164	System Models	Assorted

165	Teeth sets	Assorted
167	Telemedicine resources	Assorted
168	Timer	30
169	Tongue Model	5
170	Tourniquet	5
171	Toothpaste	Assorted
172	Top bond	Assorted
173	Transparency models	1
174	Trolley	5
175	Ultra sonic scalers	15
176	Vernier caliper	10
177	Viewing box Visual aids	Assorted
178	Vital sign apparatus	Assorted
179	Vital signs armamentarium	Assorted
180	Water chips	Assorted
181	Water flossier	Assorted
182	Water sterilizer	1
183	Wearable dental devices	Assorted
184	Weighing balance	2
185	Weighing Scale	2
186	Wood-points	Assorted
187	Wristwatch	Assorted
188	x-ray dark room	1
189	x-films	Assorted
190	x-ray machine	1



LIST OF PARTICIPANTS FOR REVIEW WORKSHOP FOR NATIONAL DIPLOMA (ND) AND HIGHER NATIONAL DIPLOMA (HND) DENTAL THERAPY

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