

NATIONAL BOARD FOR TECHNICAL EDUCATION

PLOT 'B' BIDA ROAD, P. M. B.2239, KADUNA



CURRICULUM AND COURSE SPECIFICATION

FOR

HIGHER NATIONAL DIPLOMA (HND)

IN

DENTAL SURGERY TECHNOLOGY (DST)

JANUARY 2022.

1.0 INFORMATION ON DENTAL SURGERY TECHNOLOGY HND PROGRAMME

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

2.0 Goal and Objectives of the Programme

Goal: The Higher National Diploma (HND) programme is designed to produce Dental Health Personnel who will be capable of assisting in the use of dental resources to provide oral health care to patients in pre and postoperative care clinic.

OBJECTIVES

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

- 1.0 Supervise keeping of patient information and records.
- 2.0 Assist in giving Pre, Intra, and Post- operative dental care.
- 3.0 Use Dental instrument/materials in endodontic, prosthetic, conservative, surgical and orthodontic procedures.
- 4.0 Assist the Dental Surgeon in all oral, clinical procedures and infection control.
- 5.0 Use the basic principle of First Aid in emergency cases in dental care.
- 6.0 Assist in giving oral health education and counseling in dental care.
- 7.0 Manage enterprise.

3.0 ENTRY REQUIREMENTS

The general entry requirements for the HND in **Dental Surgery Technology** are:

- a. All the requirements for admission into the ND **Dental Surgery Technology** programme.
- b. A Minimum of lower credit pass (CGPA of 2.50) in ND Dental Surgery T

Note: In exceptional cases, ND Diplomat with a pass grade with (CPGA 2.00. 2.49) in cognate ND examination, with two (2) or more years of work experience in the specific field may be considered for admission into the HND programme.

4.0 STAFFING REQUIREMENT

4.1 Headship of the Department: The HOD should be a Principal or Chief Dental Therapists/Dental Surgery Technologists who is qualified in the discipline/field of study and have post qualification cognate experience in industrial, teaching and educational management, so that he/she can co-ordinate and manage the students affairs and also to handle the practical aspect of the training which will guarantee the education and training advisory board that the department is being efficient and effectively coordinated.

4.2 Core Teaching Staff

At the point of mounting the programme, there should be a minimum of six (6) Lecturers who should spread from Lecturer II and above with first/second degrees in **Dental Surgery Technology or equivalent**.

4.3 Technical Staff

These are technically qualified staff not involved in direct lecturing/instructing, but who provide vital and indispensable services in all field facilities used in the implementation of the programme.

4.4 Career Progression

PGD and MSc. in Dental Surgery Technology/related areas.

5.0 CAREER AND ACADEMIC PROSPECTS

They can work in the following establishments/organizations

- Primary Health Care (PHCs)
- Dental Clinics
- Hospitals
- Teaching
- Industries,
- Military/Para-military
- NGOs

6.0 DURATION

The duration of the programme is two academic sessions consisting of four semesters of 17 weeks each.

7.0 CURRICULUM

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

General Studies

Foundation Courses

Core Courses

Project.

7.2 The General Education component shall include courses in:

English Language, Entrepreneurship and Citizenship Education. The General Education component shall account for not more than 10-15% of the total contact hours for the programme.

Foundation courses include courses in Economics and Computer Science. The number of hours for the courses may account for about 10-15% of the total contact hours.

Professional courses are core courses of the programme that give the student the theory and professional skills he/she needs to practice his/her field of calling at the Technologist level. These may account for between 60-70% of the contact hours.

8.0 CURRICULUM STRUCTURE

The structure of the programme consists of six semesters of classroom, and workshop activities in the institution. Each semester shall be of 17 weeks duration made up as follows:

- a. 15 weeks of teaching, i.e. instruction, practical exercise, quizzes, test, etc; and
- b. 2 weeks for examinations and registration.

8.1 ASSESSMENT CRITERIA:

9.0 ACCREDITATION

The National Board for Technical Education in conjunction with Dental Therapists' Registration Board of Nigeria shall accredit the programme before the diplomats can be awarded the Higher National Diploma certificates. Details about the process of accrediting a 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 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. Workshop practice, laboratory work and fieldwork.
- c. Satisfactory performance at all semester examinations.
- d. Satisfactory completion of final year project work.

Normally, for all courses including final year project work, continuous assessment contributes 40%, while semester examinations and project reports are weighted 60% to make a total of 100%. For Seminar presentation, Continuous assessment contributes 30%, while Seminar reports are weighted 70% to make a total of 100%.

10.2 Higher National Diploma shall be awarded in four classes:

Distinction	-	CGPA of 3.50 and above
Upper Credit	-	CGPA of 3.0 - 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
	GRADE	

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 technologist 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 programmes between the institutions and industry, the curriculum content has been written in behavioural objectives, so that it is clear to all the expected performance of the student who successfully completed some of the courses or the diplomats 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 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 a balance of theory to practical in the ratio of 50:50 or 60:40 or the reverse.

11.5 ASSESSMENT: Coursework/Assignment 50%, Practical 40%, Report 10%

12.0 PRACTICAL LOGBOOK

A personal Logbook to be kept by each student shall contain all the 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 on individual basis. The project should, as much as possible incorporate basic elements of design, drawing and complete fabrication of a marketable item or something that can be put to use. Project reports should be well presented and should be properly supervised. The department should make their own arrangement of schedules for project work.

14.0 CONDITION FOR THE AWARD OF THE HND

The HND programme in **Dental Surgery Technology** shall be accredited by the NBTE before the diplomats are awarded the diploma certificate. Details about the process of accrediting a programme for the award of the Higher National Diploma or National Diploma are available from the office of:

The Executive Secretary,

National Board for Technical Education (NBTE),

Plot B, Bida Road, P.M.B. 2239,

Kaduna, Nigeria.

15.0 CERTIFICATION AND LICENCING

On successful completion of the requirements of the programme, the school will award HND certificates while the Dental Therapists Registration Board of Nigeria issues professional certificates and licence after passing the Board's licencing examination.

CURRICULUM TABLES

HIGHER NATIONAL DIPLOMA IN DENTAL SURGERY TECHNOLOGY

FIRST SEMESTER HND - 1 (YEAR ONE)

COURSE CODE	COURSE TITLE	L	P	CU	CH	TOTAL HOURS/SEMESTER
DST 311	Medical Emergencies In Dental Practice	2	1	2	3	45
DST 312	Anatomy of Head & Neck	2	1	2	3	45
DST 313	Dental Materials	2	1	3	3	45
DST 314	Clinical Posting I	2	4	6	6	90
GLT 302	General Instrumentation	2	1	3	3	45
STA 224	Biostatistics	2	-	2	2	30
COM 123	Computer Packages I	2	1	3	3	45
GNS 301	Comm. In English II	2	-	2	2	30
TOTAL		16	9	25	25	375

SECOND SEMESTER HND – 1 (YEAR ONE)

COURSE CODE	COURSE TITLE	L	P	CU	CH	TOTAL HOURS/SEMESTER
DST 321	Dental Health Care Practice II	2	1	3	3	45
DST 322	Anesthesiology in Dental Practice	2	1	3	3	45
DST 323	Emerging & Re-Emerging Diseases	2	-	2	2	30
DST 324	Introduction to Oral Medicine	2	-	2	2	30 [not Developed]
DST 325	Clinical Posting II	2	4	6	6	90
GNS 121	Citizenship Education II	2	-	2	2	30
GNS 302	Communication in English III	2	-	2	2	30
TOTAL		16	6	22	22	330

FIRST SEMESTER HND – 2 (YEAR TWO)

COURSE CODE	COURSE TITLE	L	P	CU	CH	TOTAL HOURS/SEMESTER
DST 411	Pain & Anxiety Control in Dentistry	2	1	3	3	45
DST 412	Child Oral Health & Orthodontics	2	1	3	3	45
DST 413	Clinical Posting III	1	3	4	4	60
DST 414	Legal & Ethical Issues in Dental Care	2	1	3	3	45
DST 415	Dental Office Management	2	-	2	2	30
GNS 228	Research Methodology	2	-	2	2	30
EED 413	Entrepreneurship	2	-	2	2	30
GNS 402	Communication in English IV	2	-	2	2	30
	TOTAL	15	6	21	21	315

SECOND SEMESTER HND - 2 (YEAR TWO)

S/N	COURSE CODE	COURSE TITLE	L	P	CU	CH	TOTAL HOURS/SEMESTER
1	DST 421	Clinical Diseases & Diet Therapy II	2	1	3	3	45
2.	DST 422	Restorative Dentistry II	3	1	4	4	60
3.	DST 423	Clinical Posting IV	2	4	6	6	90
4.	DST 424	Seminar Presentation	1	3	4	4	60
5.	DST 425	Project Writing	1	5	6	6	90
	TOTAL		9	14	23	23	345

Programme: Higher National Diploma in Dental Surgery Technology

Course Title: MEDICAL EMERGENCIES IN

Code: DST 311

Credit Hour: 3

DENTAL PRACTICE.		Credit Unit:3
	Pre-requisite:	Theoretical: hours/week
Year: ONE Semester: ONE		Practical : hours/week

Course main Goal: this course is designed to enable students handle common medical emergencies in dental practice.

General Objectives:

On the completion of the course, the student should be able to:

- 1.0 Understand the Principle of First Aids and Medical Emergencies.
- 2.0 Appreciate the relationship between oral health and Systemic diseases.
- 3.0 Identify Medical Emergencies in a Dental Practice.
- 4.0 Provide emergency care in dental practice.

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: Medical emergencies in dental practice			Code:		CH:	CU:
General Objective 1.0: Understand the Principle of Medical Emergencies.						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1 Define Medical Emergencies. 1.2 Explain Dental Emergencies. 1.3 Identify the relationship between Dental and Medical Emergencies.	Explain medical emergencies Explain dental emergencies Describe the relationships between dental and medical emergencies.				Define medical emergencies. <

	<p>1.4 List types of Dental Emergencies.</p> <ul style="list-style-type: none"> • Orthodontic Emergencies • Prosthodontic Emergencies etc. 					
	<p>1.5 List Causes of Dental Emergencies.</p> <ul style="list-style-type: none"> • Drug use • Swallowing of Denture • Systemic Condition e.g Epileptic fit • Different forms of Accident Etc. 	<p>Discuss the principles of medical emergencies</p>				<p>What are the principles of medical emergencies?</p>

	<p>1.6 Know the principles of Medical Emergencies i. e</p> <ul style="list-style-type: none"> • Prevention of triggers e.g Dental Chair light etc. • Protection against further injury. • Preservation of life. • Promotion of recovery. • Prevention of injuries for people at any age. • Promotion of healthy lifestyles. <p>e. t. c</p>					
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General Objective 2.0 : Appreciate the relationship between Oral Health and Systemic Diseases.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.1 Describe Systematic diseases.</p> <p>2.2 List some Systemic Diseases /disorder e.g. Diabetes</p> <p>High Blood Pressure e.t.c.</p> <p>2.4 Explain Dental Health.</p>	<p>Discuss systemic health.</p> <p>Discuss some specific systemic diseases e. g diabetics, high blood pressure, e. t. c</p> <p>Discuss Dental Health.</p> <p>Discuss the relationship between Dental Health and some systemic diseases or disorders e.g HIV, diabetics, asthma, etc.</p>	<p>charts, Models, video clips, physical demonstration</p>			<p>Define systemic health.</p> <p>Mention some specific systemic diseases /disorder.</p> <p>Define dental health.</p> <p>What are the relationships between dental and</p>

	<p>2.5 Identify the relationship between Dental Health and some systemic diseases or disorders e. g HIV, diabetes, asthma, epilepsy etc.</p> <p>2.6 Explain the Management of medically compromised patient. e.g.</p> <ul style="list-style-type: none"> • Cardiac disease • Pulmonary disease • Liver disease • Pregnancy and lactation • Cerebrovascular accident • Diabetes mellitus • HIV/AIDS • Bleeding disorders. 	<p>Discuss the management of the medical compromised patient e.g.</p> <ul style="list-style-type: none"> • Cardiac disease • Pulmonary disease • Liver disease • Pregnancy and lactation • Cerebrovascular accident • Diabetes mellitus • HIV/AIDS • Bleeding disorders. 	charts,			<p>systemic health?</p> <p>Who are the medically compromised patients?</p>
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			Models, video clips, physical demonstration			
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General Objective 3.0 : Identify Medical Emergencies in a Dental Practice.

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>3.1 Identify Common Medical Emergencies in Dental Practice e.g.</p> <ul style="list-style-type: none"> • Collapse/syncope • Hypoglycemic coma. • Hyperglycemic coma. • Hypertensive crisis. • Asthmatic attack • Hemorrhage • Adrenal crisis <p>e. t. c</p>	<p>Discuss the common medical emergencies in dental practice e. g</p> <ul style="list-style-type: none"> • Collapse/syncope • Hypo and Hyperglycemic comas • Hypertensive crisis • Asthmatic attack <p>e. t. c</p>	<p>charts, Models, video clips, physical demonstration ,audio visuals, etc</p>			<p>What are the common emergencies in dental practice?</p>

General Objective 4.0: Provide Emergency Care in Dental Practice.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>4.1 Describe Cardiopulmonary Resuscitation (CPR)</p> <p>4.2 List common emergency drugs e.g. Analgesics, Inhalers, Adrenaline, Glucose etc.</p> <p>4.3 Demonstrate Mouth to Mouth Breathing.</p> <p>4.4 Differentiate Primary and Secondary Survey of patients during Medical Emergencies.</p>	<p>Describe the cardiopulmonary resuscitation (CPR)</p> <p>Discuss common emergency drugs e. g analgesics, inhalers, etc</p> <p>Discuss Mouth to Mouth Breathing</p> <p>Describe the primary and secondary survey of emergency patients</p>	<p>charts, Models, video clips, physical demonstration</p> <p>charts, Models, video clips, physical demonstration</p>	<p>Practice how to carry out the cardiopulmonary resuscitation.</p> <p>Practice the mouth to mouth breathing</p>	<p>Guide the students through the practice of cardiopulmonary resuscitation (CPR)</p> <p>Guide the students through the practice of the mouth to mouth breathing</p>	<p>What is cardiopulmonary resuscitation (CPR)?</p> <p>What are common emergency drugs?</p> <p>What is mouth to mouth breathing?</p> <p>What is primary and secondary survey of emergency patients ?</p>

Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: ANATOMY OF HEAD AND NECK.	Code: DST 312	Credit Hour: 3 Credit Unit:3
	Pre-requisite:	Theoretical: hours/week
Year: Semester:		Practical : hours/week

Course main Goal: this course is designed to provide the students with the knowledge of the Anatomy of the head and Neck region of the Body.

General Objectives:

On the completion of the course, the student should be able to:

- 1.0 Know the bones of the skull
- 2.0 Know the mandible and Maxilla.
- 3.0 Know the soft tissues of the mouth, lip, cheeks face, tonsils, mucous membrane, soft palate tongue, and the gums
- 4.0 Know the cranial nerves.
- 5.0 Know the bone, muscles and blood vessels of the neck region.

	<p>1.6 Draw the base of the skull.</p> <p>1.7 Identify the following terms on a human skull.</p> <ul style="list-style-type: none">• Foramen magnum• Foramen Ovale• Foramen Rotundum• Orbital fissure etc.					
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General Objective 2.0 : Know the mandible and Maxilla						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.1 Describe in details the shape of the Mandible.</p> <p>2.2 Describe in details the Shape of the Maxilla.</p> <p>2.3Describe the following:</p> <ul style="list-style-type: none"> • Infra-Orbital Foramen • Mental-Foramen • Mandibular Foramen • Zygomatic Process • Condyle Process. • Coronoid Process. <p>2.4 Draw and label blood</p>		<p>charts, Models, video clips, physical demonstration</p> <p>charts, Models, video clips, physical demonstration</p>			

	<p>and nerve supply to the face</p> <p>2.5 Describe the Temporomandibula Joint (TMJ) of a human being.</p> <p>2.6 Describe the muscles that control the TMJ i.e Muscle of Mastication such as:</p> <ul style="list-style-type: none"> • Masseter • Temporalist • Media Pterygoid • Lateral Pterygiod. <p>2.7 Explain the Muscle of Mastication i.e Nerve Supply, Origin and insertion, function etc.</p>					
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General Objective 3.0 : Know the soft tissues of the mouth, lip, cheeks face, tonsils, mucous membrane, soft palate tongue, and the gums						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>3.1 Identify the muscle of the lip.</p> <p>3.2 Describe the actions of the facial muscle.</p> <p>3.3 Describe the mucus membrane of the mouth</p> <p>3.4 Describe in details the position and shape of the tongue.</p> <p>3.5 Identify the taste buds on the tongue.</p> <p>3.6 Differentiate the taste</p>		<p>charts, Models, video clips, physical demonstration</p> <p>charts, Models, video clips, physical demonstration</p>			

	<p>buds on the tongue</p> <p>3.7 Describe the various movement of the tongue</p> <p>3.8 Explain the functions of the tongue.</p> <p>3.9 Identify the soft and hard palate in the mouth.</p> <p>3.10 Locate Tonsils in the mouth</p> <p>3.11 Describe the appearance of Tonsils in the mouth</p> <p>3.12 Explain the functions of the tonsils.</p>					
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	3.13 Describe the Gingivae.					
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6.0 General Objective 4.0 : Know the cranial nerves.

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>4.1 List the twelve (12) Cranial Nerves.</p> <p>4.2 State the sensory, Motor and mixed type of nerves.</p> <p>4.3 State the functions of the nerves in 4.2 above.</p> <p>4.4 Identify the nerve exit from the skull.</p> <p>4.5 Describe the distribution of the Trigeminal Nerves and Facial Nerves.</p>		<p>charts, Models, video clips, physical demonstration</p> <p>charts, Models, video clips, physical demonstration</p>			

	4.6 Describe the functions of the nerves in 4.5 above.					
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General Objective 5.0: Know the bone, muscles and blood vessels of the neck region.

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>5.1 Identify the bones of the neck:</p> <ul style="list-style-type: none"> • Atlas • Axis • Cervical Vertebrae <p>5.2 State the function of the bones of the neck.</p> <p>5.3 Name the muscles of the neck:</p> <ul style="list-style-type: none"> • Platysma • Sternocleidomastoid • Trapezius • Scalenus Pharyngels <p>5.4 Describe the function of</p>		<p>charts, Models, video clips, physical demonstration</p> <p>charts, Models, video clips, physical demonstration</p>			

	<p>each of the muscles listed in 5.3 above.</p> <p>5.5 State the origin and insertion of Muscles of the neck.</p> <p>5.6 Identify the nerve supply of the Muscles of the Neck.</p>					
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Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: Dental Materials	Code: 313	Credit Hour:
		Credit Unit:
	Pre-requisite:	Theoretical: hours/week
Year: TWO Semester: TWO		Practical : hours/week

Course main Goal: this course is designed to Enable Students Acquire Knowledge of Materials used in Dental Practice.

General Objectives:

On completion of the course, the student should be able to:

- 1.0 Identify various Dental Materials and their compositions.
- 2.0 Understand the Chemical and Physical Properties of dental materials.
- 3.0 Identify the classifications of dental materials.
- 4:0 Know the uses of various dental materials.
- 5.0 Understand the manipulations of dental materials.

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: Dental Materials			Code: DST 313		CH:3 CU:3	
General Objective 1.0 : Identify various Dental Materials and their compositions						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1 Define dental Materials. 1.2 List types of Dental Materials. 1.3 Classify Dental Materials.	<ul style="list-style-type: none">- Explain what is dental materials- Explain the common dental materials eg<ul style="list-style-type: none">. Zinc oxide and eugenol. alginate,local anaesthetics,. fluoride gel, sodium fluoride paste. prophylactic paste. gold,various dental cements. . . .fissure sealants,pop,stone,wax,gutta purcha,polymer-monomer etc- Explain the compositions of each of the dental materials listed above.- Explain how the	,Pysical demonstration,Internet,Books	Identify various dental materials and their composition	<p>Guide the students on the identification of various dental materials and their compositions use in the manipulation of dental materials.</p> <p>Explain to the students the chemical compositions of various materials.</p> <p>Exlain to the students the uses of various dental materials.</p>	<p>Define dental materials.</p> <p>Classify dental materials according to their uses.</p> <p>Identify the chemical compositions of various dental materials.</p>

		<p>components of the dental materials affect their physical properties.</p> <ul style="list-style-type: none">- Describe the stress-strain relationship in dental materials- Describe the procedures of handling the various dental materials- Define fluoride- List the various types of fluoride- State the uses of each type of fluoride- Define prophylactic paste- Identify the various types of prophylactic paste				
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General Objective 2.0 : Understand the chemical and physical properties of dental materials						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.1 List General properties of Dental Materials.</p> <p>2.2 List the chemical and physical properties of dental materials.</p> <p>2.3 Give examples of listed properties in 2.2 above.</p> <p>2.4 Explain the differences between Chemical and physical properties of dental materials.</p> <p>2.5 List factors to be considered in selection of</p>	<p>Explain the chemical properties of dental materials: solubility, corrosion resistance etc.</p> <p>Explain the physical properties of dental materials listed in 1;2 above rigidity, elasticity, abrasion,</p> <p>Resistant, corrosion resistant.</p> <p>Explain the properties of the materials in 1:2above that makes them suitable as dental materials.</p>	Internet, physical demonstration, projector.	<p>Identify the chemical properties of dental materials</p> <p>Identify the physical properties of dental materials</p> <p>Identify the properties of dental materials</p>	<p>Guide the students on the chemical properties of dental materials</p> <p>Guide the students on the physical properties of dental materials</p> <p>Guide the students on the properties dental materials</p>	<p>Identify the chemical properties of dental materials</p> <p>Identify the physical materials of dental materials</p> <p>Identify the properties of dental materials</p>

	Dental Materials.					
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General Objective 3.0 : Know the classification of Dental Materials						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>3.1 Classify Dental Materials into:</p> <ul style="list-style-type: none"> • Restorative Materials • Preventive Materials • Prosthetic Materials • Surgery Materials. Etc. <p>3.2 List Dental Material under the classification in 3.1 above.</p> <p>3.3 Describe the uses of materials mentioned in 3.1 above</p>	<p>Group the materials in to three-</p> <p>-Restorative materials</p> <p>- Preventive materials</p> <p>- Prosthetic materials</p> <p>Define restorative materials,preventive materials,prosthetic materials,</p> <p>Describe impression compounds with examples</p> <p>Define hydrocolloid</p> <p>Explain reversible and irreversible hydrocolloid.</p>	Intrenet,physical demonstration,books	Identify the grouping of dental materials	Guide the students on the different groups of dental materials	Identify the various groups of dental materials

General Objective 4.0 : Understand the uses of Dental Materials						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>4.1 List the uses of dental materials.</p> <p>4.2 Explain the uses of dental materials mentioned in 4.1 above.</p> <p>4.3 List Advantages and Disadvantages of Dental Materials listed in 4.1 above.</p>	<p>Describe the various uses of dental materials</p> <p>Identify materials use for the following-</p> <p>Impression taking, casting of models.</p>	Books, internet, physical demonstration	Identify the various uses of dental materials	Explain the uses of dental materials	<p>Identify the various uses of dental materials</p> <p>Identify the material use in impression taking, casting of models</p>

General Objective 5.0 : Understand Manipulation of Dental Materials						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>5.1 Explain the manipulation of dental materials.</p> <p>5.2 Explain Terms used in manipulation:</p> <ul style="list-style-type: none"> • Malleability. • Ductability. • Setting Time. • Porosity etc. <p>5.3 List the instruments for manipulating Dental Materials.</p>	<p>Explain the concepts of manipulation of dental materials</p> <p>Define setting time</p> <p>Explain the setting time of the various dental materials</p> <p>Explain the advantages of setting time of dental materials</p>	Physical demonstration, books, internet	<p>Identify the concept of manipulation of dental material</p> <p>Identify the setting time of dental materials</p> <p>Identify the advantages of setting time of dental materials</p>	<p>Explain the concept of manipulation of dental materials</p> <p>Explain the setting time of various materials</p>	<p>Identify the concept of dental materials manipulation</p> <p>Define setting time</p> <p>Identify the advantages of setting time of dental materials.</p>

Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: CLINICAL POSTING I	Code: 314	Credit Hour: 6

		Credit Unit:6
	Pre-requisite:	Theoretical: hours/week
Year:2 Semester: 1		Practical : hours/week

Course main Goal: this course is designed to enable students acquire practical knowledge about patients handling in

all units of dentistry and clinical activities

General Objectives:

On the completion of the course, the student should be able to:

- 1.0 Understand client- Dental staff relationship
- 2.0 Assessment of client/patient
- 3.0 Understand proper Dental record keeping
- 4.0 Understand Pre and Post-operative care
- 5.0 Identify instruments and material used Dentistry
- 6.0 Understand the concept of sterilization

General Objective 2.0 : Assessment of client/patient						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2						

PROGRAMME: SCIENCE LABORATORY L TECHNOLOGY (HIGHER NATIONAL DIPLOMA) COURS: GLT 312

[GENERAL INSTRUMENTATIONL)

UNIT: 3.0

GOAL: This course is designed to provide the student with thorough understanding of the principle of operation, use and maintenance of measuring and analysing instruments.

GENERAL OBJECTIVES

On completion of this course, the student should be able to:

- 1.0 Understand the operation, use and care of basic measuring instrument
- 2.0 Know types of signal generator in the laboratory
- 3.0 Know the types of pressure measuring instruments
- 4.0 Know the types of recorders and reproducers
- 5.0 Know the types of power supply units in the laboratory
- 6.0 Understand the essentials of trouble-shorting techniques

PROGRAMME: DENTALSURGERY TECHNOLOGY			
Course: General Laboratory Techniques		Course Code: GLT 312	Contact Hours: 4 5
Course Specification: General Instrumentation			
WEE	General Objectives 1.0 Understand the principles and instrumentation of colorimetry and spectrophotometry		
1	Special Learning Objective:	Teachers Activities	Resources
	1.1 Identify basic measuring Instruments e.g moving coil, moving Iron, thermocouple oscilloscope, digital meters. 1.2 Classify measuring instruments e.g. analogue and digital meters. 1.3 List an example of each type in 1.2 above.	<input type="checkbox"/> Use question and answer techniques <input type="checkbox"/> Lecture <hr/> <input type="checkbox"/> <u>Practicals</u>	<input type="checkbox"/> Analogue voltmeter <input type="checkbox"/> Digital voltmeter <input type="checkbox"/> Power supply (D.C.) <input type="checkbox"/> Connecting wires <input type="checkbox"/> Bread boards <input type="checkbox"/> Resistors <input type="checkbox"/> Signal generator <input type="checkbox"/> Oscilloscope
	1.4 Describe with the aid of diagrams the construction of the instruments in 1.1 above. 1.5 Describe with the principle of operation of the Instruments in 1.1 above. 1.6 Explain the terms:	<input type="checkbox"/> Use question and answer techniques <input type="checkbox"/> Lecture <input type="checkbox"/> <u>Practicals</u> <hr/> Use multimeter to show the effect of terms stated in 1.5.	<input type="checkbox"/> Multimeter (Digital) <input type="checkbox"/> Avometer

	<p>1.7 Carry out set-zero and calibration adjustments in the instruments in instruments in 1.1</p> <p>1.8 Measure:</p> <ul style="list-style-type: none"> • Voltage • Current • Resistance using the appropriate instrument in 1.1 above. <p>1.9 Measure frequency, amplitude, phase</p>	<ul style="list-style-type: none"> □ Use question and answer techniques □ Lecture with worked example □ <u>Practicals/Demonstration</u> Measure Voltage, Current parallel circuit of resistors multimeter and power supply. 	<ul style="list-style-type: none"> □ Analogue voltmeter □ Digital voltmeter □ Power supply (D.C.) □ Connecting wires □ Bread boards □ Resistors □ Signal generator □ Oscilloscope □ Power Supply
WEE	General Objectives 2.0 Understand the principles and instrumentation of colorimetry and spectrophotometry		
4-5	Special Learning Objective:	Teachers Activities	Resources
	2.1 Construct measuring Instruments e.g. thermocouple, potentiometer.	<ul style="list-style-type: none"> □ <u>Lecture</u> 	<ul style="list-style-type: none"> □ Thermocouple □ Potentiometer □ Digital meters □ Bread board □ Power Supply
	2.2 Carry out measurements using the instruments in 1.10 above.	<ul style="list-style-type: none"> □ <u>Practicals</u> <p>Use different urines to</p>	
	2.3 Carry out routine care of the instruments in	construct thermocouple Get students involved in	

WEE	General Objectives 3.0 Know types of signal generators in the Laboratory		
4-5	Special Learning Objective:	Teachers Activities	Resources
	<p>3.1 Classify signal generators e.g. how frequency, high frequency, variable frequency etc.</p> <p>3.2 State the different types of waveforms produced by signal generators in 2.1 above e.g. sine wave, square wave, saw tooth etc.</p> <p>3.3 Describe with the aid of suitable diagrams the operation of the signal generator listed in 2.1 above.</p> <p>3.4 Describe a typical application of each type of signal generator listed in 2.1 above.</p>	<p><input type="checkbox"/> Lecture</p> <p><input type="checkbox"/> <u>Practicals</u></p> <p>Display and sketch types of waveform on oscilloscope.</p> <p>Measure Amctitude</p>	<p><input type="checkbox"/> Signal generator</p> <p><input type="checkbox"/> Double beam Oscilloscope</p> <p><input type="checkbox"/> Power Supply</p>
WEE	General Objectives 4.0 Understand the principles and instrumentation of colorimetry and spectrophotometry		
6-7	Special Learning Objective:	Teachers Activities	Resources
	<p>4.1 Identify the different types of instruments used in measuring pressure e.g. barometers, manometers, pressure gauges etc.</p> <p>4.2 Classify the instruments in 3.1 above in relation to their operating principles.</p> <p>4.3 Describe the principle of operation of the instruments in 3.1 above.</p> <p>4.5 Measure pressure using any of the instruments in</p>	<p><input type="checkbox"/> Lecture/Demonstration</p> <p><input type="checkbox"/> <u>Practicals</u></p> <p>Measure pressure using manometer and Bourdon gauge.</p>	<p><input type="checkbox"/> Manometer</p> <p><input type="checkbox"/> Barometer</p> <p><input type="checkbox"/> Pressure gauges</p> <p><input type="checkbox"/> Autoclaves</p>

WEEK	General Objectives 5.0 Know types of power supply units inn the Laboratory		
	Special Learning Objective:	Teachers Activities	Resources
9-10	5.1 Identify types of power supply unit e.g. mains-derived, direct current, batteries etc.	8 Lecture	7 Power supply 8 Breadboard 9 Transformer 10 Diodes 11 Multimeter 12 Oscilloscope
	5.2 Classify direct current supply e.g. low voltage, high voltage, stabilized voltage. 5.3 Explain with the aid of diagrams how a.c is converted to d.c.	9 <u>Practicals</u> Construct mains derived power supply	
	5.4 Construct typical power supply units. 5.5 Outline the precautions to be observed when using power supply units. 5.6 Apply the use of power supply units	5 <u>Practicals</u> _____ Use constructed power supply to power a circuit.	4 Transformer 5 Diodes 6 Breadboard 7 Capacitors 8 Resistors 9 Regulators 10 Multimeter

WEE	General Objectives 6.0 Understand the essentials of trouble shooting techniques		
11-12	Special Learning Objective:	Teachers Activities	Resources
	6.1 Identify tools for trouble-shooting e.g. service manuals, multimeter, signal generators etc. 6.2 Obtain necessary information from the operator and from service Manuals about a given instrument. 6.3 Check: <ul style="list-style-type: none"> • Continuity • availability of power etc in the instruments 	4 <u>Lecture</u> 5 Practicals Troubleshoot faults in equipment using service manuals, multimeters and oscilloscopes.	3 Service manual 4 Multimeter 5 Screw driver 6 Allen keys 7 Oscilloscope
	6.4 Trouble-shoot instrument such as overhead projector, PH meter etc . 6.5 Detect a defective modules or pants e.g. by signal injection, pant substitution, etc in instruments using the tools in 6.1 above. 6.6 Repair or replace the defective module pant in	1 <u>Practicals</u> 2 Students should isolate defective modules by the use of oscilloscopes and multimeters	1 Multimeter 2 Soldering iron 3 Oscilloscope 4 Signal generator 5 PH meter 6 Overhead project.

	Course Code: STA 224	Total Hours: 5
Course: Biostatistics I		Theoretical: 2 hours /week
Year: 2 Semester: 4	Pre-requisite:	Practical: 3 hours /week

Goal: This course is designed to enable students apply statistics to biological data and medicine..

General Objectives: On completion of this course, the diplomate will be able to:

1. Understand the importance of statistics in biology and medicine.
2. Understand the concept of vital and health statistics.
3. Understand standardised rates.
4. Understand simple genetics and bioassays.

General Objective 1.0 Understand the importance of statistics in biology and medicine.						
Week	Specific Learning Outcomes	Teacher's activities	Resources	Specific Learning	Teacher's activities	Evaluation
1	1.1 Explain the scope and uses of statistics in biology and medicine.	Explain and discuss the concepts covered	Textbooks Lecture Notes Secondary	Demonstrate understanding of the concepts covered by	Supervise student exercises and assess	To explain the scope and uses of statistics in biology and

2	1.2 State types and sources of biological and medical data such as states and National Health Services and agricultural returns.	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	
3	1.3 State problems associated with collection of biological and medical statistics. 1.4 Suggest various ways of tackling	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	
4	1.5 State various types of variability associated with bio-medical data, e.g. response and reactions to drugs	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	
General Objective 2.0 Understand the Concepts of Vital and Health Statistics.						

5	2.1 Classify vital and health statistics.	Explain and discuss the concepts covered	Textbooks Lecture Notes Secondary data	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	
6	2.2 Define basic vital statistical indices.	Explain and discuss the concepts covered	Textbooks Lecture Notes Secondary data	Demonstrate understanding of the concepts covered by solving examples	Explain and supervise student exercises and assess student work	
7	2.3 Enumerate the uses of the indices in 2.2 above	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	
General Objective 3.0 Understand Standardized Rates						

8	3.1 Define standardized rates.	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	
9	3.2 Distinguish between direct and indirect methods of standardization of rates.	Explain and discuss the concepts covered	Textbooks Lecture Notes Secondary data	Demonstrate understanding of the concepts covered by solving examples	Explain and supervise student exercises and assess student work	
10	3.3 Illustrate methods in 3.2 above with examples	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	

1 1	3.3 (cont.) Illustrate methods in 3.2 above with examples	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	clinics
General Objective 4.0 Understand simple Genetics and Bioassays.						
1 2	4.1 Explain the meaning of genetics.	Explain and discuss the concepts covered	Textbooks Lecture Notes Secondary data	Demonstrate understanding of the concepts covered by solving examples	Explain and supervise student exercises and assess student work	Textbooks Lecture Notes Secondary data from hospitals /
1 3	4.2 Define simple Mendelian ratio.	Explain and discuss the concepts covered	Textbooks Lecture Notes Secondary	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	Textbooks Lecture Notes Secondary

1 4	<p>4.3 Explain the fundamental principles of bioassay.</p> <p>4.4 State the concepts of ED 50 and LD 50. (- effective dose, - letter dose)</p>	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	
1 5	<p>4.5 Explain relative potency.</p> <p>4.6 Describe simple assays: direct and parallel lines</p>	Explain and discuss the concepts covered	Textbooks Lecture Notes	Demonstrate understanding of the concepts covered by	Explain and supervise student exercises and	

Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: Dental Health Care Practice II	Code: 321	Credit Hour:
		Credit Unit:
	Pre-requisite:	Theoretical: hours/week
Year: Semester:		Practical : hours/week

Course main Goal: this course is designed for student to understand dental health care of different age groups.

General Objectives:

On the completion of the course, the student should be able to:

- 1.0 Understand Oral Health care practice
- 2.0 Acquire knowledge of importance of Pediatric dental care.
- 3.0 Acquire knowledge of importance of Geriatric dental care.
- 4.0 Understand the management of a Dental Clinic setting.**

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: Dental Health Care Practice II			Code: 321		CH:	CU:
General Objective 1.0 : Understand Oral Health care practice						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1 Define Oral Health	Explain Oral Health care practice	Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures, internet.			Define Oral Health.
						Define Oral Health care practice.
	1.2 Define Health according to W.H.O	Explain Health according to WHO				Define Health.
	1.3 Describe the importance of Oral Health Care	Explain impact of the following factors on Oral Health;				What are the impact of the following factors on Oral Health. ● Social ● Cultural ● Environment etc.
	1.4 Describe the impact of the following factors on Oral Health; ● Social	● Social ● Cultural ● Environment etc.				Describe Oral Health education in the following

	<ul style="list-style-type: none"> ● Cultural ● Environment etc. 					
	<p>1.5 Describe Oral Health education in the following areas</p> <ul style="list-style-type: none"> ● Hospitals ● Clinics ● Schools ● Offices ● Religious centres ● Communities etc. 	<p>Explain Oral Health education in</p> <ul style="list-style-type: none"> ● Hospitals ● Clinics ● Schools ● Offices ● Religious centres ● Communities etc. 				<p>areas</p> <ul style="list-style-type: none"> ● Hospitals ● Clinics ● Schools ● Offices ● Religious centres ● Communities etc.

General Objective 2.0: Acquire knowledge of importance of Pediatric dental care.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>3.1 Describe a pediatric patient</p> <p>3.2 Discuss the methods of care of pediatric patients in dental clinic</p> <ul style="list-style-type: none"> ● Tell-show-do ● Modelling ● Counselling ● Parental support e.t.c. <p>3.3 Explain the steps involved in the care of pediatric dental patients with special needs.</p>	<p>Explain who a pediatric patient is.</p> <p>Explain the methods of dealing with a pediatric patients in dental clinic</p> <ul style="list-style-type: none"> ● Tell-show-do ● Modelling ● Counselling ● Parental support e.t.c. <p>Explain the steps involved in the care of pediatric dental patients with special needs.</p>	<p>Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures, internet.</p>			<p>Who is a pediatric patient?</p> <p>Describe the methods of care of pediatric patient in dental clinic.</p> <p>Explain the steps involved in the care of pediatric dental patients with special needs.</p>

	<ul style="list-style-type: none"> ● Autism ● Down syndrome ● e.t.c 	<ul style="list-style-type: none"> ● Autism e.t.c 				
	<p>3.4 Identify common dental diseases associated with pediatric patient</p> <ul style="list-style-type: none"> ● Rampant Dental Caries ● Gingivitis ● Malocclusion ● Trauma e.t.c 	<p>Explain the common dental diseases associated with pediatric patient</p> <ul style="list-style-type: none"> ● Rampant Dental Caries ● Gingivitis ● Malocclusion <p>Trauma e.t.c</p>				Describe the common dental diseases associated with pediatric patient

General Objective 3.0: Acquire knowledge of importance of Geriatric dental care.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.1 Describe a geriatric patient</p> <p>2.2 Describe common health challenges in geriatric dental patients:</p> <ul style="list-style-type: none"> ● Partial or full edentulousness ● Gum recession ● Periodontitis ● High blood pressure ● Xerostomia ● Diabetes ● Gait ● Eye or ear problems ● Osteomyelitis etc. <p>2.3 Explain the steps involved in the care of</p>	<p>Describe a geriatric patient</p> <p>Explain the common health challenges in geriatric dental patients:</p> <ul style="list-style-type: none"> ● Gum recession ● Periodontitis ● High blood pressure ● Xerostomia ● Diabetics ● Osteomyelitis etc. <p>Explain the steps involved in taking</p>	<p>Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures, internet</p>			<p>Describe geriatric patient</p> <p>Describe common health challenges in geriatric dental patients.</p> <p>What are the</p>

	geriatric patients in the dental clinic.	care of geriatric patients in the dental clinic.				steps involve in taking care of a geriatric patient in Dental clinic.
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General Objective 4.0: Understand the Management of a Dental Clinic.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>4.1 Define Nosocomial infection</p> <p>4.2 Define Cross infection.</p> <p>4.3 List causes of Nosocomial and Cross infection</p> <p>5.4 Describe reception/admission of patients in dental clinic.</p>	<p>Explain Nosocomial infection</p> <p>Explain Cross infection.</p> <p>Explain the causes of Nosocomial and Cross infection.</p> <p>Explain reception/admission of patients in dental clinic.</p> <p>Explain pre and post-operative care of patient in dental clinic.</p>	<p>Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures, internet</p>			<p>What is Nosocomial and Cross infection?</p> <p>Describe causes of Nosocomial and Cross infection.</p> <p>Describe reception/admission of patients in dental clinic.</p> <p>Explain pre and post-operative care of patient in dental clinic.</p>

	5.5 Describe pre and post-operative care and follow up of patient in dental clinic.					
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Programme: Statistics (National Diploma)	Course	Contact Hours: 3 hours/week
Course: Computer Packages I	Code:	Theoretical: 2 hours /week

Goal: This course is designed to introduce the student to basic computer packages.

General Objectives: On completion of this course, the diplomate will be able to:

- 1.0 Know the existing application packages.
- 2.0 Understand word processing packages.
- 3.0 Know electronic spread sheets.
- 4.0 Know the fundamentals of accounting packages.
- 5.0 Understand presentation packages.
- 6.0 Know how to use education, medical and other packages.

General Objective 1.0 Know the Existing aApplication Packages.						
Week	Specific Learning Outcomes	Teacher's activities	Resources	Specific	Teache	Evaluation
1	1.1 Understand the difference between systems software, program generators and application packages	Explain the difference between systems software, program generators and application packages	White board PC Loaded with different	To be able to view different software packages and know their features	To assist student view different software packages and know their features	View different software packages and know their features
2	7 Identify the modes of package acquisition 4.8 State the criteria for package acceptability	Identify the modes of package acquisition State the criteria for package acceptability	White board PC Loaded with different	To be able to view different software packages and know their features	To assist student view different software packages and know their features	View different software packages and know their features

Week/	General Objective 2.0 Understand Word Processing Packages.					
3	2.1 Understand a word processing package	<p>Explain meaning of a word processor</p> <p>State the advantages and use of word processors.</p>	<p>White board</p> <p>PC Loaded with different packages</p>	<p>Show ability to carry out different assignments in word processing as may be determined by the lecturer.</p>	<p>Assist student carry out different assignments in word processing</p>	
4	2.1 (continued) Understand a word processing package	<p>Identify functions of word processors in other professional packages like in desk top publishing (Core/draw, PageMaker, etc)</p> <p>Explain use of document and</p>	<p>White board</p> <p>PC Loaded with different</p>	<p>Show ability to carry out different assignments in word processing as may be determined by the lecturer.</p>	<p>Assist student carry out different assignments in word processing</p>	
5	2.1 (continued) Understand a word processing package	<p>Explain the import of graphics and the creation of drawing objects,</p>	<p>White board</p>	<p>Show ability to carry out different</p>	<p>Assist student carry</p>	

		Explain sharing of data with other users	Loaded with different packages and connect	word processing as may be determined by the	assignments in word processing	
Week/	General Objective 3.0 Know electronic spread sheets.					
6	<p>5 Understand the concept of a spread sheet.</p> <p>6 Understand the use of a spread sheet in a forecasting project, financial analysis, production scheduling and control and other forms of modelling.</p>	<p>List the types of existing spread sheets.</p> <p>Introduce spread sheet concepts.</p> <p>Explain the use of spread</p>	<p>White board</p> <p>PC</p> <p>Loaded with different</p>	Show ability to carry out different assignments in spreadsheets as may be determined by the lecturer.	Assist student carry out different assignments in spreadsheets	
7	3.3 Understand the use of spread sheet to carry out general statistical functions using cell references in a spreadsheet.	Explain carrying out general statistical functions using cell references in a spreadsheet.	<p>White board</p> <p>PC</p>	Show ability to carry out different assignments in spreadsheets as may be	Assist student carry out different assignments	

			and connect ed to			
8	<p>5 Understand the use of a spread sheet to perform specific accounting functions and highlight data security requirements on spread sheet data.</p> <p>1.6 Transfer information and graphics between applications.</p>	<p>Explain performing specific accounting functions using spread sheets and highlight data security requirements on spread sheet data.</p> <p>Explain formatting worksheets and working with formulas.</p>	<p>White board</p> <p>PC</p> <p>Loaded with different package</p>	<p>Show ability to carry out different assignments in spreadsheets as may be determined by the lecturer.</p>	<p>Assist student carry out different assignments in spreadsheets</p>	
Week/	General Objective 4 .0 Know the Fundamentals of Accounting Packages.					

9	<p>4.1 Understand areas in accounting and financial management prone to using accounting packages.</p> <p>4.2 Understand existing accounting packages highlighting facilities that make each package unique (Peach tree, DacEasy, Sage, Quick books)</p>	<p>Explain accounting and financial management</p> <p>Identify areas in accounting to using accounting packages.</p>	<p>White board</p> <p>PC</p> <p>Loaded with different</p>	<p>Show ability to carry out different assignments in accounting and payroll as may be determined by the lecturer.</p>	<p>Assist student carry out different assignments in accounting and</p>	
		<p>make each package</p> <p>Explain payroll, job costing, invoicing and order</p>	<p>OHP</p>			
10	<ul style="list-style-type: none"> Understand the following accounting system: general ledger system, accounts receivable, accounts payable, Understand payroll, job costing, invoicing and order processing. 	<p>Explain accounting and financial management</p> <p>Identify areas in accounting to using accounting packages.</p> <p>Describe an overview of the</p>	<p>White board</p> <p>PC</p> <p>Loaded with different packages and connect</p>	<p>Show ability to carry out different assignments in accounting and payroll as may be determined by the lecturer.</p>	<p>Assist student carry out different assignments in accounting and payroll</p>	
Week/	General Objective 5.0 Understand presentation packages.					

1 1	5.1 Understand the functions of a presentation package using power point to illustrate.	<p>Explain the functions of a presentation package using power point.</p> <p>Explain types of presentation</p>	<p>White board</p> <p>PC</p> <p>Loaded with different packages and</p>	<p>Show ability to carry out different presentation assignments as may be determined by the</p>	<p>Assist student carry out different presentation</p>	
			connected			
1 2	5.2 Understand types of presentation presentations on strategies, sales promotion, training, marketing plan, company meetings using the auto content wizard and templates.	<p>Create presentations on strategies, sales promotion, training, marketing plan, company meetings using the auto content wizard and templates.</p>	<p>White board</p> <p>PC</p> <p>Loaded with different</p>	<p>Show ability to carry out different presentation assignments as may be determined by the lecturer.</p>	<p>Assist student carry out different presentation assignments</p>	

1 3	5.3 Understand the use of slides to illustrate different views presentations.	Use slides to illustrate different views presentations.	White board PC Loaded with different	Show ability to carry out different presentation assignments as may be determined by the lecturer.	Assist student carry out different presentation assignments	
Week/	General Objective 6.0 Know How to Use Education, Medical and Other Packages.					
1 4	6.1 Undertake a general overview of educational, medical and other packages	Explain an overview of educational, medical and other packages	White board PC Loaded with different	Carry out an assignment using a medical package	Assist student to carry out an assignment using a medical	

1 5	6.1 (continued) Undertake a general overview of educational, medical and other packages	Explain an overview of educational, medical and other packages	White board PC Loaded with different	Carry out an assignment using a medical package	Assist student to carry out an assignment using a medical	
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PROGRAMME: GENERAL STUDIES

COURSE TITLE: COMMUNICATION IN ENGLISH I

CODE: GNS 301

DURATION: 2 HOURS PER WEEK (30 HOURS PER SEMESTER)

GOALS: This course is intended to further improve the student's level of proficiency and competence in language use. It is designed to increase the student's ability to master and manipulate the various language skills of a higher level.

GENERAL OBJECTIVES:

On completion of the course the student should:

- 1.0 Know how to construct good sentences.
- 2.0 Know how to reason apply the basic principles of logic.
- 3.0 Know how to write different types of essays.
- 4.0 Appreciate literature in English.

PROGRAMME: HIGHER NATIONAL DIPLOMA [DENTALSURGERY TECHNOLOGY.						
COURSE: COMMUNICATION IN ENGLISH I			COURSE CODE: GNS 301		CONTACT HOURS:2 hrs	
GOAL: This course is intended to further improve the student’s level of proficiency and competence in language use. It is designed to increase the student’s ability to master and manipulate the various language skills of a higher level.						
COURSE SPECIFICATION: Theoretical Contents:				Practical Contents:.		
	General Objective: 1.0 Know how to Construct Good Sentences.					
WEEK	Specific Learning Objective Theory	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Learning Resources
1	Sentences 1.1 Explain the different types of sentences. 1.2 Explain the parts of a sentence.	<ul style="list-style-type: none">Explain the different types of sentences.Explain the parts of a sentence.	<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">	
2	1.3 Explain tenses. 1.4 List the various tenses. 1.5 Construct sentences to depict correct use of tenses.	<ul style="list-style-type: none">Explain tenses.List the various tenses.Construct sentences to depict correct use of tenses.	<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">	
3	1.6 Explain concord. 1.7 Analyze types of	<ul style="list-style-type: none">Explain concord.Analyze types of	<ul style="list-style-type: none">	<ul style="list-style-type: none">	<ul style="list-style-type: none">	

	concor ds.	concor ds.				
4	1.8 Apply the rules of concord in sentence construction.	<ul style="list-style-type: none"> Apply the rules of concord in sentence construction. 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	
	General Objectives: 2.0. Know How to Reason Applying the Basic Principles of Logic.					
WEEK	Specific Learning Objective Theory	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	
5	Logic 2.1 Explain the concept of logical thinking. 2.2 Explain the basic principles of logic, viz, form validity and argument.	<ul style="list-style-type: none"> Explain the concept of logical thinking. Explain the basic principles of logic, viz, form validity and argument. 				
6	2.3 Apply the principles of logic to distinguish fact from opinion.	<ul style="list-style-type: none"> Apply the principles of logic to distinguish fact from opinion. 				
7	2.4 Differentiate between deductive and inductive reasoning.	<ul style="list-style-type: none"> Differentiate between deductive and inductive reasoning. 				
8	2.5 Apply the principles of logic in deductive and inductive reasoning.	<ul style="list-style-type: none"> Apply the principles of logic in deductive and inductive reasoning. 				
9	2.6 Explain the premise as a step towards the conclusion.	<ul style="list-style-type: none"> Explain the premise as a step towards the conclusion. 				

	General Objectives: 3.0 Know How to Write Different Types of Essays.					
WEEK	Specific Learning Objective Theory	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Learning Resources
10	Essay 3.1 Explain the different	<ul style="list-style-type: none"> 3.1 Explain the different 				-
11	3.2 Explain the characteristics of each type in 3.1 above. 3.3 Explain the logical orders of presentation, e.g. chronological, spatial, general-to-specific, specific-to-general, alternation, inductive, deductive, etc.	<ul style="list-style-type: none"> Explain the characteristics of each type in 3.1 above. Explain the logical orders of presentation, e.g. chronological, spatial, general-to-specific, specific-to-general, alternation, inductive, deductive, etc. 				
12	3.4 Write an expository essay.	<ul style="list-style-type: none"> Write an expository essay. 				
13	3.4 Write an argumentative Essay.	<ul style="list-style-type: none"> Write an argumentative Essay. 				
	General Objectives: 4.0 Appreciate Literature in English..					

WEEK	Specific Learning Objective Theory	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Learning Resources
14	Literature 4.1 Explain the term literature. 4.2 List the genres of literature. 4.3 Explain the terminology of poetry, e.g. rhyme, rhythm, enjambment, etc.	<ul style="list-style-type: none"> • Explain the term literature. • List the genres of literature. • Explain the terminology of poetry, e.g. rhyme, rhythm, enjambment, etc. 	<ul style="list-style-type: none"> • 			
15	4.4 Analyze a given poem. 4.5 Answer an essay question on poetry.	<ul style="list-style-type: none"> • Analyze a given poem. • Answer an essay question on poetry. 	<ul style="list-style-type: none"> • 			

Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: Dental Health Care Practice II	Code: DST 321	Credit Hour: 3 Credit Unit:3
	Pre-requisite:	Theoretical: hours/week

Course main Goal: this course is designed for student to understand dental health care of different age groups.

General Objectives:

On the completion of the course, the student should be able to:

1.0 Understand Oral Health care practice

2.0 Acquire knowledge of importance of Pediatric dental care.

3.0 Acquire knowledge of importance of Geriatric dental care.

4.0 Understand the management of a Dental Clinic setting.

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: Dental Health Care Practice II			Code: DST 321		CH:3 CU:3	
General Objective 1.0 : Understand Oral Health care practice						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.6 Define Oral Health	Explain Oral Health care practice Explain Health according to WHO	Audio-visuals, computer based supports such as			Define Oral Health. Define Oral Health care practice.

	<p>1.7 Define Health according to W.H.O</p> <p>1.8 Describe the importance of Oral Health Care</p> <p>1.9 Describe the impact of the following factors on Oral Health;</p> <ul style="list-style-type: none"> ● Social ● Cultural ● Environment etc. <p>1.10 Describe Oral Health education in the following areas</p>	<p>Explain impact of the following factors on Oral Health;</p> <ul style="list-style-type: none"> ● Social ● Cultural ● Environment etc. <p>Explain Oral Health education in</p> <ul style="list-style-type: none"> ● Hospitals ● Clinics ● Schools 	<p>slides and projectors, videos, text books, posters, pictures, internet.</p>			<p>Define Health.</p> <p>What are the impact of the following factors on Oral Health.</p> <ul style="list-style-type: none"> ● Social ● Cultural ● Environment etc. <p>Describe Oral Health education in the following areas</p> <ul style="list-style-type: none"> ● Hospitals ● Clinics ● Schools ● Offices ● Religious centres ● Communities etc.
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	<ul style="list-style-type: none"> ● Hospitals ● Clinics ● Schools ● Offices ● Religious centres ● Communities etc. 	<ul style="list-style-type: none"> ● Offices ● Religious centres ● Communities etc. 				
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General Objective 2.0: Acquire knowledge of importance of Pediatric dental care.

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	3.5 Describe a pediatric patient 3.6 Discuss the methods of care of pediatric patients in dental clinic <ul style="list-style-type: none"> ● Tell-show-do ● Modelling 	Explain who a pediatric patient is. Explain the methods of dealing with a pediatric patients in dental clinic <ul style="list-style-type: none"> ● Tell-show-do ● Modelling 	Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures,			Who is a pediatric patient? Describe the methods of care of pediatric patient in dental clinic.

	<ul style="list-style-type: none"> ● Counselling ● Parental support e.t.c. <p>3.7 Explain the steps involved in the care of pediatric dental patients with special needs.</p> <ul style="list-style-type: none"> ● Autism ● Down syndrome ● e.t.c <p>3.8 Identify common dental diseases associated with pediatric patient</p> <ul style="list-style-type: none"> ● Rampant Dental Caries ● Gingivitis ● Malocclusion 	<ul style="list-style-type: none"> ● Counselling ● Parental support e.t.c. <p>Explain the steps involved in the care of pediatric dental patients with special needs.</p> <ul style="list-style-type: none"> ● Autism e.t.c <p>Explain the common dental diseases associated with pediatric patient</p> <ul style="list-style-type: none"> ● Rampant Dental Caries ● Gingivitis ● Malocclusion 	internet.			<p>Explain the steps involved in the care of pediatric dental patients with special needs.</p> <p>Describe the common dental diseases associated with pediatric patient</p>
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	● Trauma e.t.c	Trauma e.t.c				
General Objective 3.0: Acquire knowledge of importance of Geriatric dental care.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.4 Describe a geriatric patient</p> <p>2.5 Describe common health challenges in geriatric dental patients:</p> <ul style="list-style-type: none"> ● Partial or full edentulousness ● Gum recession ● Periodontitis ● High blood pressure ● Xerostomia ● Diabetes ● Gait ● Eye or ear problems ● Osteomyelitis etc. 	<p>Describe a geriatric patient</p> <p>Explain the common health challenges in geriatric dental patients:</p> <ul style="list-style-type: none"> ● Gum recession ● Periodontitis ● High blood pressure ● Xerostomia ● Diabetics ● Osteomyelitis etc. 	<p>Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures, internet</p>			<p>Describe geriatric patient</p> <p>Describe common health challenges in geriatric dental patients.</p>

	2.6 Explain the steps involved in the care of geriatric patients in the dental clinic.	Explain the steps involved in taking care of geriatric patients in the dental clinic.				What are the steps involve in taking care of a geriatric patient in Dental clinic.
General Objective 4.0: Understand the management of a Dental Clinic.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	4.4 Define Nosocomial infection 4.5 Define Cross infection.	Explain Nosocomial infection Explain Cross infection. Explain the causes of Nosocomial and Cross infection.	Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters,			What is Nosocomial and Cross infection? Describe causes of Nosocomial and Cross infection. Describe

	<p>4.6 List causes of Nosocomial and Cross infection</p> <p>5.4 Describe reception/admission of patients in dental clinic.</p> <p>5.5 Describe pre and post-operative care and follow up of patient in dental clinic.</p>	<p>Explain reception/admission of patients in dental clinic.</p> <p>Explain pre and post-operative care of patient in dental clinic.</p>	<p>pictures, internet</p>			<p>reception/admission of patients in dental clinic.</p> <p>Explain pre and post-operative care of patient in dental clinic.</p>
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Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: ANESTHESIOLOGY IN DENTAL PRACTICE.	Code: 322	Credit Hour: 3 Credit Unit:3
	Pre-requisite:	Theoretical: hours/week
Year: ONE Semester: TWO		Practical : hours/week

Course main Goal: this course is designed to enable students acquire knowledge of Anesthesia.

General Objectives:

On completion of the course, the students should be able to:

- 1.0 Understand the importance of Anesthesia.
- 2.0 Recognize the various types of Anesthetic agents.
- 3.0 Identify the various methods of Administering Anesthesia.
- 4.0 Understand the complications of use of Anesthetic agents.

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: ANAESTHESIOLOGY IN DENTAL PRACICE			Code: 322		CH:3 CU:3	
5.0 General Objective 1.0: Understand the Importance of Anesthesia.						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1 Define Anesthesiology.	Explain what anesthesia is all about		identify the aims and objectives of Anesthesia	Guide students to identify objectives of Anesthesia	Define Anesthesiology
	1.2 List the aims of Anesthesia.					Identify the aims of Anesthesia
	1.3 List objectives of Anesthesia.					Identify the objectives of Anesthesia
	1.4 List the types of Anesthesia					
	1.5 List the general properties of Anesthetic					

	agents.					
	1.6 List the importance of Anesthetic Agents.					
General Objective 2.0: Recognize the various types of Anesthetic agents.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.1 Identify types of Anesthesia.</p> <p>2.2 Identify the Chemical Properties of 2.1 above.</p> <p>2.3 Identify the physical properties of 2.1 above.</p> <p>2.4 Mention the uses of 2.1 above.</p>	<p>Explain the different methods of Anaesthesia eg local and general Anaesthesia</p> <p>Demonstrate the instruments used for local anaesthesia</p>		Identify the various methods of anaesthesia	Teach students the various methods of Anaesthesia	Identify the various methods of Anaesthesia

	2.5 Describe the Advantages and Disadvantages of 2.1 above.					
General Objective 3.0: Identify the various methods of Administering Anesthesia.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>3.1 List route of administration of Anesthesia.</p> <ul style="list-style-type: none"> • Oral • Intramuscular • Subcutaneous • Intravenous etc. <p>3.2 Identify routes of administration of General Anesthesia.</p> <p>3.3 Identify routes of</p>	<p>Explain commonly used anaesthetic agents</p> <p>State the composition of commonly used anaesthetic agents</p>		Identify the various types of anaesthetic agents	Guide students to be able to recognize various types of anaesthetic agents and their components	<p>Define anaesthetic agent</p> <p>Identify commonly used anaesthetic agents</p>

	administration of Local Anesthesia. 3.4 State the Advantages and Disadvantages of 3.2 & 3.3 above.					
General Objective 4.0: Understand the complications of use of Anesthetic agents.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	4.1 Define Complication 4.2 Give examples of Local Anesthetic agents. 4.3 List the complications that may arise from administration of Local Anesthetic agents. 4.4 List the complications that may arise from	Explain the complications of local anaesthesia eg fainting, shock, broken needle etc Explain the necessary precautions to be taken before administering	Books, internet, Books,	 Recognize the common fears of patients about to undergo local anaesthesia Identify the post operative care after local anaesthesia	 Guide the students on how recognize patients with fears Explain the precautions	Define complications of local anaesthetic agents Give examples of local anaesthetic agents complications Know the common fears of patients about to undergo anaesthesia Know the counselling

	administration of General Anesthetic agents.	anaesthesia	internet	Apply necessary precautions in administration of local anaesthesia	necessary in administration of local anaesthesia	methods of patients about to undergo local anaesthesia
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Programme: Higher National Diploma in Dental Surgery Technology.		
Course Title: EMERGING AND REEMERGING DISEASES.	Code: 323	Credit Hour: 2
		Credit Unit: 2
	Pre-requisite:	Theoretical: hours/week

Course main Goal: this course is designed to enable students acquire knowledge of new diseases.

General Objectives:

On the completion of the course, the student should be able to:-

- 1.0. Define Diseases, types and causes
- 2.0. Define some terms e.g., incidence, prevalence, endemic, epidemic, pandemic
- 3.0. Define emerging diseases, explain the history of the concept, classify the diseases and briefly explain the contributing factors.
- 4.0. Define reemerging diseases, classify and explain reasons for the reemergence
- 5.0. Differentiate between emerging and reemerging diseases.
- 6.0. Understand management of emerging and reemerging disease i.e. prevention and treatment.

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: EMERGING AND REEMERGING DISEASE			Code:323		CH:	CU:
General Objective 1.0 :Define Diseases, types and causes						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1 Define disease <					

General Objective 2.0: Define some terms e.g., incidence, prevalence, endemic, epidemic, pandemic

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	2.1 Define and explain terms such as incidence, prevalence endemic, epidemic, pandemic etc.	Explain terms used in disease distribution	Audio-visuals, computer-based supports such as slides and projectors, videos, text books, posters, pictures, internet.	Understand and explain basic terms used for disease distribution		Explain basic terms in disease distribution

General Objective 3.0 : Understanding the concept of Emerging diseases.

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	3.1 Define emerging diseases, 3.1.1 Explain the history of the emerging disease	Define and explain the meaning of emerging disease	Audio-visuals, computer-based supports			Understand the history of emerging

	3.1.2 Classify the diseases and briefly explain the contributing factors.	Discuss the history of emerging disease Classify disease and explain the contributing factors that initiate the disease	such as slides and projectors, videos, text books, posters, pictures, internet.			disease Identify and explain the meaning of emerging disease
General Objective 4.0 :Understanding the concept of Reemerging Diseases.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	4.1 Define reemerging diseases, 4.1.2 Classify and explain reasons for disease reemergence	Define and explain the meaning of reemerging disease Classify disease and explain the contributing factors that initiate the disease	Audio-visuals, computer-based supports such as slides and projectors, videos, text books, posters, pictures,			Define and explain the meaning of reemerging disease Classify reemerging disease Explain reasons for reemergence

			internet.			
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General Objective 5.0 :Explain the Difference Between Emerging and Reemerging Diseases.

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>5.1 Differentiate Between Emerging and Reemerging Disease</p> <p>5.2 List the different disease in the different classes of disease</p>	<p>Explain the differences between emerging and reemerging disease</p> <p>Identify the diseases in the different classes of disease</p>	<p>Audio-visuals, computer-based supports such as slides and projectors, videos, text books, posters, pictures, internet.</p>			<p>Differentiate Between Emerging and Reemerging Disease</p> <p>List diseases in the different classes.</p>

General Objective 6.0 :Understand management of emerging and reemerging disease						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	6.1 Understand management of emerging and reemerging disease	Explain the various management strategies of emerging and reemerging disease	Audio-visuals, computer-based supports such as slides and projectors, videos, text books, posters, pictures, internet.			Identify various management strategies of emerging and reemerging disease.

DST 324 INTRO TO ORAL MEDICINE [not developed].

Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: CLINICAL POSTING II	Code: 325	Credit Hour: 6
		Credit Unit:6

	Pre-requisite:	Theoretical: hours/week
Year:2 Semester: 1		Practical : hours/week

Course main Goal: this course is designed to enable students acquire practical knowledge about patients handling in

all units of dentistry and clinical activities

General Objectives:

On the completion of the course, the student should be able to:

1.0 Understand client- Dental staff relationship

2.0 Assessment of client/patient

3.0 Understand proper Dental record keeping

4.0 Understand Pre and Post-operative care

5.0 Identify instruments and material used Dentistry

6.0 Understand the concept of sterilization

Programme: National Diploma in Dental Surgery Technology							
Course Title: CLINICAL POSTING I			Code: 314		CH:6 CU:6		
General Objective 1.0 : Understand client- Dental staff relationship							
Week	Specific Learning Outcomes		Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.6	Take patient/client records		Learning by observation in the clinic			Psychological assessment of patient, learn to make patient more comfortable
	1.7	Counselling of patient/client.		Use of video clips			
	1.8	Demonstrate good inter-personal relationship with colleagues					
	1.9	Demonstrate sound ethical behavior.					
	1.10	Take vital signs i.e BP, Pulse rate, Temperature.					

General Objective 2.0 : Assessment of client/patient etc-7.0						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2						

PROGRAMME: DENTAL SURGERY TECHNOLOGY (HIGHER NATIONAL DIPLOMA)			
COURSE: CITIZENSHIP EDUCATION II			
CODE: GNS 121			
DURATION (Hours/Week) Lecture: 2hrs	Tutorial: 0	Practical: - 0	Total: 2 (30hrs/semester)
UNITS: 2			
GOAL: The goal of this course is to create awareness and consciousness of Nigerian political institutions and structures, democratic principles and social values in the mind of the student.			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
<ol style="list-style-type: none"> 1. Understand government, political parties and elections. 2. Know the arms of government. 3. Understand constituted authority. 4. Understand national identity 5. Understand national ethics and discipline in nation life 6. Know some methods of environmental protection 			

PROGRAMME: DENTAL SURGERY TECHNOLOGY (HIGHER NATIONAL DIPLOMA)**COURSE:** Citizenship Education II**Course Code:** GNS 121**Contact Hours:** 30**COURSE SPECIFICATION:** Theoretical Content: 2

Practical Content: 0

General Objective: 1: Understand government, political parties and elections.

Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
1.1 Explain the need for government. 1.2 Describe the various systems of government. 1.3 Examine the various forms of government. 1.4 Outline the functions of government. 1.5 Examine the various processes of an election. 1.6 Assess the role and importance of political parties in an election. 1.7 Evaluate the functions of other agencies in an election. 1.8 Discuss the need for a free and fair election.						Quiz Test Assignment

General Objective: 2: Know the arms of government.

Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
2.1 Analyse the functions of the Legislature, the Executive and the Judiciary at Federal, State and Local Government levels. 2.2 Examine the relationships among the three arms of government 2.3 Explain the principles of "Separation of Power" and "checks and balance" in government. 2.4 Explain the processes of election/appointment and removal of the Executive at the three levels of						Quiz Test Assignment

government.						
2.5 Examine the main components of the Nigerian judicial system and its independence.						
2.6 Evaluate the components of the code of conduct for public officers.						
2.7 Assess the effectiveness of the Executive in the management of public funds.						
2.8 Assess the performance of the mass media in Nigeria						
General Objective: 3: Understand constituted authority						
Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
3.1 Explain the term Constituted Authority.			3.11			Quiz
3.2 Distinguish between the types of constituted authority						Test
3.3 Examine bureaucracy, its characteristics, advantages and disadvantages.						Assignment
3.4 Examine different forms of delegated authority in a modern state.						
3.5 Distinguish between the terms "Power" and Authority.						
3.6 State the forms and effects of abuse of power.						
3.7 Prescribe remedies for abuse of power.						
3.8 Distinguish between "Leadership" and "Followership".						
3.9 Evaluate the roles of leaders and followers in nation building,						
3.10 Examine the qualities of good leaders and followers.						
General Objective: 4: Understand national identity						

Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
4.1 Explain the need for and ways of preserving national identity. 4.2 Examine the role and significance of national symbols. 4.3 Discuss the contributions of selected heroes and heroines towards the development of Nigeria. 4.4 State similarities and differences of various aspects of culture in Nigeria 4.5 Examine the role of culture in national integration			-			Quiz Test Assignment Examination
General Objective: 5: Understand national ethics and discipline in nation life						
Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
5.1 Explain the need for national ethics 5.2 Relate various aspects of national ethics to national development. 5.3 Discuss the causes and consequences of indiscipline in the nation. 5.4 Evaluate the methods used by public agencies in the control of indiscipline. 5.5 Discuss how citizens can participate in the control of indiscipline. 5.6 Discuss the need to maintain the right attitudes towards public property.						Quiz Test Assignment
General Objective: 6: Know some methods of environmental protection.						
Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
6.1 Explain the concept of environment. 6.2 Analyse the components of the Nigerian environment. 6.3 Explain the impact of the						Quiz Test

6.4	environment on human development. Suggest ways of reducing over exploitation of the environment.						Assignment
6.5	Discuss the different forms, causes and effects of pollution on the environment.						
6.6	Evaluate the different methods of controlling pollution.						
6.7	Examine the different methods used for the conservation of the environment.						
6.8	Assess the effectiveness of national and international conservation agencies.						

PROGRAMME: GENERAL STUDIES

COURSE TITLE: COMMUNICATION IN ENGLISH III

PREREQUISITE: GNS 301

DURATION: 2 HOURS PER WEEK (30 HOURS PER SEMESTER)

GOALS: This course is designed to further expose the student to the principles and practice of written communication. It is designed to enable the student continue to master skills in the use of English in the various professions.

GENERAL OBJECTIVES:

On completion of the course the student should:

- 1.0 Understand the principles and practice of written communication.
- 2.0 Comprehend more difficult reading materials.
- 3.0 Know the procedure for writing project reports.

PROGRAMME:DENTAL SURGERY TECHNOLOGY [HIGHER NATIONAL DIPLOMA]						
COURSE:COMMUNICATION IN ENGLISH III			COURSE CODE: GNS 302		CONTACT HOURS:2 hrs	
GOAL: This course is designed to further expose the student to the principles and practice of written communication. It is designed to enable the student continue to master skills in the use of English in the various professions.						
COURSE SPECIFICATION: Theoretical Contents:				Practical Contents:.		
	General Objective: 1.0 Understand the principles and practice of written communication.					
WEEK	Specific Learning Objective Theory	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Learning Resources
1	Written Communication 					

4	1.4 Prepare a portfolio of correspondence using different presentation techniques: appointments, promotions, dismissals, commendations, queries, condolences, congratulations.	<ul style="list-style-type: none"> Prepare a portfolio of correspondence using different presentation techniques: appointments, promotions, dismissals, commendations, queries, condolences, congratulations. 	•	•	•	
	General Objectives: 2.0. Comprehend more difficult reading materials.					
WEEK	Specific Learning Objective Theory	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	
5	Comprehension 2.1 Reading passages of expository and argumentative writing.	<ul style="list-style-type: none"> Reading passages of expository and argumentative writing. 				
6	2.2 Trace the logic in the passages in 2.1 above.	<ul style="list-style-type: none"> Trace the logic in the passages in 2.1 above. 				
7	2.3 Differentiate between facts and opinions.	<ul style="list-style-type: none"> Differentiate between facts and opinions. 				

8	2.4 Answer questions on what is read.	<ul style="list-style-type: none"> Answer questions on what is read. 				
	General Objectives: 3.0 Know the procedure for writing project reports.				General Objectives:	
WEEK	Specific Learning Objective	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Learning Resources
	Theory					
9	Project Reports 3.1 Explain the characteristics of a project report, viz, part, format, style. 3.2 Select a suitable topic for a project.	<ul style="list-style-type: none"> Explain the characteristics of a project report, viz, part, format, style. Select a suitable topic for a project. 				-
10	3.3 Explain methods of gathering data from primary, secondary and tertiary sources.	<ul style="list-style-type: none"> Explain methods of gathering data from primary, secondary and tertiary sources. 				
11	3.4 Use reference materials	<ul style="list-style-type: none"> Use reference materials 				

	for gathering data.	for gathering data.				
12	<p>3.5 Use appropriate citation and documentation styles, eg. APA, MLA.</p> <p>3.6 Explain the procedure for writing a project report.</p>	<ul style="list-style-type: none"> • Use appropriate citation and documentation styles, e.g. APA, MLA. • Explain the procedure for writing a project report. 				
13	3.7 Write an outline of a project report using appropriate numbering, ranking and phrasing.	<ul style="list-style-type: none"> • Write an outline of a project report using appropriate numbering, ranking and phrasing. 				
14	3.8 Write a project report.	<ul style="list-style-type: none"> • Write a project report. 				
15	3.9 Present project report.	<ul style="list-style-type: none"> • Present project report. 				

Programme: Higher National Diploma in Dental Surgery Technology (HND)		
Course Title: Pain and Anxiety Control in Dentistry.	Code: dST 411	Credit Hour: 3 Credit Unit:3
	Pre-requisite:	Theoretical: hours/week

Course main Goal: this course is designed to enable students understand management of pain and anxiety in Dental practice.

General Objectives:

On the completion of the course, the student should be able to:

- 1.0 Understand Pain and Anxiety in Dental practice.
- 2.0 Understand the multi-dimensional nature of pain.
- 3.0 Assess pain in dental patient.

	1.6 List causes of Anxiety.	different means of pain management				
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General Objective 2.0: Understand the Multi-dimensional Nature of Pain.

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.1 Define nature of pain.</p> <p>2.2 Explain rationale behind pain.</p> <p>2.3 Explain the multidimensional nature of pain</p>			To define pain		Define pain

	2.4					
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General Objective 3.0 : Assess pain in dental patient						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>3.1 Explain Pain Assessment</p> <p>3.2 List types of Pain Assessment.</p> <p>3.3 Report Pain Assessment.</p> <p>3.4 Explain Pain Management.</p>					

Programme: Higher National Diploma In Dental Surgery Technology		
Course Title: Child Oral Health & Orthodontics	Code: 412	Credit Hour: 3
		Credit Unit:3

Course main Goal: this course is designed to enable students acquire knowledge about Children Oral Health.

General Objectives:

On the completion of the course, the student should be able to:

- 1.0 Understand dental anatomy of a child.
- 2.0 Assist in handling a child during dental treatment.
- 3.0 Understand conservative procedures in children.
- 4.0 Understand extraction procedure in children.
- 5.0 Understand the requirements of children with special needs.
- 6.0 Understand common terminologies used in orthodontics.
- 7.0 Know the dental and oral anomalies in man
- 8.0 Know procedures to prevent and correct oral and dental anomalies.
- 9.0 Know orthodontic appliances

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: Child Oral Health & Orthodontics.			Code: DST 412		CH:3 CU:3	
General Objective 1.0: Understand dental anatomy of a child.						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1 Define Paedodontics 1.2 List types of dentition. 1.3 Draw the teeth mentioned in 1.2 above. 1.4 Describe the anatomy of each tooth in the deciduous dentition. 1.5 Explain relationship of root formation to tooth eruption. 1.6 Identify the eruption dates in deciduous dentition. 1.7 State the age when space for permanent teeth is well			To define Pedodontics		Define Pedodontics

	<p>established.</p> <p>1.8 Write Dental formular of primary/deciduous teeth.</p> <p>1.9 Identify conditions that lead to space loss in deciduous dentition.</p> <p>1.10 Explain need for tooth retention before exfoliation in children.</p>					
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General Objective 2.0 : Assist in handling a child during dental treatment.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.1 Describe possible reactions of the child to dental environment.</p> <p>2.2 Describe possible motivational actions on 2.2 above.</p> <p>2.3 Describe possible ways of sustaining the child's attention.</p>					
General Objective 3.0: Understand conservative procedures in children.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation

1-2	3.1 Identify instrument used in examining a child in Dental Clinic.					
	3.2 Examine the teeth (deciduous model) of the child using mirror.					
	3.3 Examine the oral cavity (deciduous model) of the child using mirror.					
	3.4 Demonstrate the use of the tweezer on the model.					
General Objective 4.0: Understand extraction procedure in children.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>4.1 Identify possible oral presentations observable in the oral cavity.</p> <ul style="list-style-type: none"> • Malocclusion • Ulcers • Thrush • Rampant Caries • Gingivitis etc. 					

	<p>4.2 Explain dental caries in children.</p> <p>4.3 List possible diagnosis in 4.1 above.</p> <p>4.4 List Signs and Symptoms of dental caries in children.</p> <p>4.5 Explain the mode of control in 4.4 above.</p> <p>Plan treatment to 4.2 above, scaling, filling.</p> <p>4.6 Identify instrument used for each treatment plan.</p> <p>4.7 Identify the necessary dental materials used in 4.6 above.</p>					
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	4.9 Give post – operative instructions to patients/parents.					
General Objective 5.0: Understand the requirements of children with special needs.						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	<p>5.1 Describe methods of pain control in children with specials needs.</p> <p>5.2 Describe the importance of x-ray in extraction.</p> <p>5.3 Explain the procedure “Serial Extraction”.</p> <p>5.4 Identify the instrument used for extraction.</p> <p>5.5 Give post extraction instruction to patient/parents.</p>					

General Objective 6.0: Understand common terminologies used in orthodontics.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>1.1 Define the following terms:</p> <ul style="list-style-type: none"> • Orthodontics • Normal Occlusion • Malocclusion <p>1.2 Identify different types of facial profile.</p> <p>1.3 Classify the different malocclusion in 1.1 above.</p> <p>Eg (i) class 1</p> <p>(ii) class 11</p>			<p>1.4 orthodontics</p> <p>1.5 Define occlusion</p> <p>1.6 Define normal occlusion</p> <p>1.7 Define malocclusion</p> <p>1.8 Define centric occlusion.</p> <p>1.9 Identify and sketch different types of facial profile.</p> <p>1.10 Classify the different malocclusion in 1.4 above.</p> <p>Eg (i) class 1</p> <p>(ii) class 11 division 1 and 2</p> <p>(iii) class 111.</p>		

	(iii) class 111.					
General Objective 7.0 : Know the basic and oral anomalies in man						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>7.1 Describe the types of malrelations of groups of teeth i.e.</p> <ul style="list-style-type: none"> • Crossbite • Edge to edge bite • End to end bite • Openbite • Overbite • Overjet • Underjet etc. <p>Identify the anomalies in 7.1 above.</p>			<p>Describe the type of malrelations of groups of teeth i.e.</p> <p>(i) Crossbite</p> <p>(ii) edge to edge bite</p> <p>(iii) end to end bite</p> <p>(iv) openbite</p> <p>(v) overjet</p> <p>(vi) overjet</p> <p>(vii) underjet</p> <p>Identify the anomalies in 2.1</p>		

General Objective 8.0 : List the types of malposition of individual tooth						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>8.1 List types of Malposition of Individual Tooth i.e</p> <ul style="list-style-type: none"> • Labioversion • Linguoversion • Buccoversion • Supraversion • Torsoversion • Infraversion <p>8.2 Define the malpositions in 8.1 above.</p> <p>8.3 Identify the anomalies in 8.2 above.</p> <p>8.4 Identify other oral and dental anomalies e.g.</p>			<p>Malposition of Individual Tooth i.e</p> <ul style="list-style-type: none"> i. Labioversion ii. Linguoversion iii. Buccoversion iv. Supraversion v. Torsoversion vi. infraversion <p>3.2 Define the malpositions in 3.1 above.</p> <p>3.3 Identify the anomalies in 2.3 above.</p> <p>3.4 Identify other oral and dental anomalies eg cleft lip and palate etc</p>		

	<ul style="list-style-type: none"> • Cleft lip • Palate • Cleft lip and Palate etc. 					
General Objective 9.0 : Procedures to prevent and correct oral and dental anomalies						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	9.1 Identify bad habits leading to the different types of malrelations. 9.2 Explain how these habits can be corrected. 9.3 Identify other dental anomalies not due to bad habits. 9.4 Explain how the anomalies in 9.3 above can be corrected.					

Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: LEGAL & ETHICAL ISSUES IN DENTAL CARE.	Code: DST 414	Credit Hour: 3 Credit Unit:3
	Pre-requisite:	Theoretical: hours/week

Course main Goal: this course is designed to provide the students with good scientific knowledge of the ethics of Dental Surgery Technology practice

General Objectives:

On the completion of the course, the student should be able to understand the:

- 1.0 Meaning of law and ethics in dental practice
- 2.0 Purpose of professional code of ethics
- 3.0 Fundamental principles of ethics
- 4.0 Obligations as Dental Surgery Technologists
- 5.0 Professional conducts
- 6.0 Conviction of Dental Surgery Technologists
- 7.0 Legal basis for practicing as a Dental Surgery Technologist

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: LEGAL & ETHICAL ISSUES IN DENTAL CARE.			Code: DST 415		CH:3 CU:3	
General Objective:Meaning of law and Ethics in dental practice						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1Understand the Objectives of the Code of Ethics and Jurisprudence	Explain the meaning of code of ethics and jurisprudence to the students	Audio-visuals, computer-based supports such as slides and projectors, videos, text books, posters, pictures, internet.			Identify true meaning of ethics and jurisprudence
	1.2 Understand the definition of Law and Ethics	Define Law and Ethics				Define law Define ethics

General Objective 2.0 : Purpose of Professional Codes of Ethics						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2,1 Understand the Purpose of Professional Codes of Ethics</p> <p>2.2 Diagrammatical presentation of the meaning of ethics</p>	<p>Explain the purpose of professional code of ethics</p> <p>Use diagram to explain the concepts</p>	<p>Audio-visuals, computer-based supports such as slides and projectors, videos, text books, posters, pictures, internet.</p>			<p>Highlight purpose of professional code of ethics</p> <p>Present the meaning of Ethics with diagrams.</p>
General Objective 3.0 :Fundamental principles of ethics						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation

1-2	3.1 Explain the following fundamental terms: i. Patience autonomy, ii. Non- Maleficence, iii. Beneficence, iv. Justice etc.	Explain fundamental terms in ethics.	Audio-visuals, computer-based supports such as slides and projectors, videos, text books, posters, pictures, internet.			Differentiate between the fundamental terms used in ethics
General Objective 4.0 :Obligation of Dental Surgery Technologists						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	4.1 Understand the professional rules that govern Dental Surgery Technologists	Explain the rules that govern the profession: i. mode of dressing, ii. maintain professional competence iii. see dental	Audio-visuals, computer-based supports such as slides and projectors, videos, text			Identify some of the rules that govern the profession i. mode of dressing, ii. maintain professional

		profession as a team work iv.have respect for other oral health providers etc	books, posters, pictures, internet.DTRBN manual, internet			competence iii. see dental profession as a team work iv.have respect for other oral health providers etc
General Objective 5.0 :Professional conducts						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	5.1 Understand the meaning of professional conduct 5.2 Understand what professional conducts is	Explain the meaning of professional conduct Explain the types of profession conducts	Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures, internet, DTRBN			Define professional conduct Explain types of professional conducts

	<p>expected of them</p> <ul style="list-style-type: none"> i. Relationship with Professional Colleagues at all times ii. Treatment of patients iii. Improper conduct with a Patient iv. Aiding Unprofessional Practice v. Media Publicity and Advertisement <p>Clinic Etiquette</p>		manual			
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General Objective 6.0 :Conviction of Dental Surgery Technologists						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>6.1 Understand reasons for convicting a Dental Surgery Technologist</p> <p>6.2 Understand the various types of convictions that may be spelt out for misconducts</p>	<p>Explain reasons for conviction</p> <p>Explain the various types of conviction for misconducts</p>	<p>Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures, internet., DTRBN manual</p>			<p>Explain the types of conviction for misconducts</p>
General Objective 7.0 :Legal basis for practicing as a Dental Surgery Technologist						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation

1-2	<p>7.1 Understand the legal basis for practicing as a Dental Surgery Technologists:</p> <ul style="list-style-type: none"> • Professional Examination • Provisional Registration • Full Registration • Annual Licensing 	Explain the legal basis for practicing as a Dental Surgery Technologists	Audio-visuals, computer-based supports such as slides and projectors, videos, text books, posters, pictures, internet., DThRBN manual, Internet			What ate the legal basis for practicing as a Dental Surgery Technologist
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Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: DENTAL OFFICE MANAGEMENT	Code: DST 415	Credit Hour: 2 Credit Unit:2
	Pre-requisite:	Theoretical: hours/week

Course main Goal: this course is designed to enable the students have general knowledge of Office Management.

General Objectives:

On completion of the course, the students should be able to:

- 1.0 Identify the economic management of dental office.
- 2.0 Comprehend Office Management of personnel and materials.
- 3.0 Understand the appropriate management techniques in the dental office.
- 4.0 Understand store keeping of Dental Materials.**

Programme: National Diploma in Dental Surgery Technology							
Course Title: Dental office management			Code: DST 415		CH:2	CU:2	
General Objective 1.0 : Identify the economic management of dental office							
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation	
1-2	1.1 Define Economics	Explain economic management in dental office	Books	Define economic management		What is economic management	
	1.2 Define management.		Projector	Explain the factors involved in economic management		Explain the factors involved in economic management	
	1.3 Define Economic Management.		internet	List the factors involved in economic management eg			
	1.4 List the factors involved in 1.3 above	Explain management of personnel, materials and equipment in dental office	Books	Breakdown of income and expenditure			
	1.5 Explain the factors listed in 1.4 above		Internet	Explain each factors involved in the above		Describe management	
	1.6 Define Procurement		projector				Explain factors to be considered in interviewing for a position as a dental surgery technologist
	1.7 Explain the process of procuring dental materials in a dental office.					Define management	
			State the factors to be considered in interviewing for a position of a dental surgery technician				

				<p>Describe the deployment of staff in a dental office</p> <p>Describe the process of staff evaluation</p> <p>Define procurement</p> <p>Explain the process of procuring materials and equipment in a dental office</p>		<p>Explain the process of staff evaluation</p> <p>Describe procurement and the process involved in procuring materials and equipment in dental office.</p>
General Objective 2.0: Comprehend Office Management of Personnel and Materials.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation

1-2	<p>2.1 Define Personnel Management.</p> <p>2.2 Define management of materials in dental office</p>	<p>Explain management of personnel, materials in dental office</p>		<p>Define management</p> <p>State the factors to be considered in interviewing for a position of a dental surgery technician</p> <p>Describe the deployment of staff in a dental office</p> <p>Describe the process of staff evaluation</p> <p>Define procurement</p> <p>Explain the process of procuring materials and equipment in a dental office</p>		<p>Describe management</p> <p>Explain factors to be considered in interviewing for a position as a dental surgery technologist</p> <p>Explain the process of staff evaluation</p> <p>Describe procurement and the process involved in procuring materials and equipment in dental office</p>
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General Objective 3.0 : Understand Appropriate Management Techniques in Dental Office						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>3.1 Define Management Techniques.</p> <p>3.2 List steps involved in Management Techniques.</p> <p>3.3 Explain steps listed in 3.2 above.</p> <p>3.4 Prepare Estimate and Budget for procurement of dental materials.</p>	<p>Explain the management techniques</p> <p>Explain the situations under which the techniques in 3:1 may be useful</p> <p>Highlight the various techniques in 3:1 above</p>		<p>Define management techniques</p> <p>State the various situations under which the techniques may be useful</p> <p>List the various in 3:1 above</p> <p>Describe the various techniques in 3:1</p>		<p>Define management techniques</p> <p>State the various situations under which the techniques may be useful</p> <p>List the various in 3:1 above</p> <p>Describe the various techniques in 3:1</p> <p>Define duties and activities of staff in dental</p>
General Objective 4.0 : Understand Store Keeping of Dental Materials						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation

1-2	<p>4.1 Define Store Keeping.</p> <p>4.2 Explain the needs for store keeping.</p> <p>4.3 Explain the importance of store keeping.</p> <p>4.4 Explain methods of keeping consumables and non-consumables dental materials.</p> <p>4.5 Demonstrate filing store ledger forms.</p> <p>4.6 Describe Store Regulations.</p>	<p>Identify needs of a dental store</p> <p>Explain the process of store keeping</p> <p>Identify the various dental forms</p> <p>Explain the various returns of materials expended</p> <p>Identify the various forms necessary for stock taking and issuing of items from store</p> <p>Define store regulations</p> <p>State the differences between long and short shelf span</p>		<p>Explain the needs for a dental store</p> <p>Describe the process of store keeping</p> <p>Describe the various dental forms</p> <p>Describe the various forms necessary for stock keeping</p> <p>Describe store regulations</p> <p>Describe the differences between long and short shelf span</p>		<p>Define a store</p> <p>Explain the process of store keeping</p> <p>Describe the various return of materials expended</p> <p>Describe the various forms necessary for stock taking</p> <p>Define store regulations and describe the differences between long and short shelves span.</p>
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	4.7 Explain Long and short shelfe span.					
	4.8 Describe the differences in 4.7 above.					

PROGRAMME: DENTAL SURGERY TECHNOLOGY (HIGHER NATIONAL DIPLOMA)			
COURSE: RESEARCH METHODOLOGY			
CODE: GNS 228			
DURATION (Hours/Week)	Tutorial: 0	Practical: - 0	Total: 2 (30hrs/semester)

Lecture: 2hrs			
UNITS: 2			
GOAL:			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1 Understand the meaning and scope of a library. 2 Know how to use a library 3 Know what a research is and how to carry it out 4 Understand basic principles of probability 5 Understand the use and importance of some measures of central tendency and measures of dispersion in summarising data 6 Know the methodology applied in research 7 Know the various methods of data collection 8 Know the various methods of processing data 9 Understand the presentation of research report.			

PROGRAMME: DENTAL SURGERY TECHNOLOGY (HIGHER NATIONAL DIPLOMA)							
COURSE: Research Methodology			Course Code: GNS 228		Contact Hours: 30		
COURSE Theoretical Content: 2			Practical Content: 0				
SPECIFICATION:							
General Objective: 1: Understand the meaning and scope of a library.							
Specific Learning Objectives		Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
1.1	Explain a Library						
1.2	Explain the role of a library in learning and research						
1.3	State the various kinds of library stock.						
1.4	Identify the different sections of a typical library.						
1.5	Explain the different types of libraries.						
General Objective: 2: Know how to use a library							
Specific Learning Objectives		Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
2.1	Explain classification.						
2.2	Explain the different types of classification scheme (DDC and LC).						
2.3	Identify reference sources.						
2.4	Identify types of serials.						
2.5	Explain indexing and abstracting.						
2.6	Describe the use of card catalogues.						
2.7	Explain back of book indexes.						
2.8	Describe how the library is used in research						

General Objective: 3:Know what a research is and how to carry it out						
Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
3.1 Define the following terms: Research, scientific method, theory, hypotheses.			3.4			Quiz
3.2 Describe various types of research e.g. descriptive, exploratory. casual, experimental and comparative.						Test
3.3 Explain the stages of a research						Assignment
- Formulation of a research problem						
- Hypothesis						
- Justification of the research						
- Data collection and analysis						
- Findings etc.						
General Objective: 4:Understand basic principles of probability						
Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
4.1 Define random variable			-			Quiz
4.2 Explain the concept of randomness						Test
4.3 Define probability						Assignment
4.4 State the laws of probability						
4.5 Define conditional probability						
4.6 Solve simple problems involving the laws of probability as they relate to their disciplines.						

General Objective: 5: Understand the use and importance of some measures of central tendency and measures of dispersion in summarising data						
Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
5.1 Define arithmetic mean, geometric mean, median mode and harmonic mean. 5.2 Compute the measures in 5.1 above given: - (a) ungrouped data - (b) grouped data 5.3 Explain the uses of geometric and harmonic mean 5.4 Calculate the following, given a set of data: - quartiles - deciles - percentiles 5.5 List the merits and demerits of the above measures of central tendency 5.6 Define measures of dispersion 5.7 State the importance of the measures of dispersion 5.8 Calculate - The mean deviation - Semi Interquartile range - Variance and standard deviation 5.9 Explain the application of the measures of deviation defined in 5.6 above 5.10 Calculate the measures			5.11			Quiz Test Assignment

of the dispersion listed in 5.8 given sets of data in their disciplines.						
General Objective: 6: Know the methodology applied in research						
Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
6.1 Define sampling 6.2 Explain the two major types of sampling - probability sampling e.g. random, systematic, stratified and clusters - Non-probability sampling, e.g. accidental, quotas and purposive. 6.3 Explain the uses of sampling in their disciplines 6.4 State the advantages and disadvantages of 6.2 (a) and 6.2 (b) above.			6.5			Quiz Test Assignment
General Objective: 7: Know the various methods of data collection						
Specific Learning Objectives	Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
7.1 Define data 7.2 State the types of data: - primary, and - secondary data 7.3 Explain the methods of collecting data e.g. observation, questionnaire, interview 7.4 Describe how to design questionnaires for research in their			7.8			Quiz Test Assignment

7.5	disciplines Explain how to administer questionnaires and interview.						
7.6	Design sample questionnaires for research in their disciplines						
7.7	Administer the questionnaires in 7.6 above						
General Objective: 8: Know the various methods of processing data							
Specific Learning Objectives		Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
8.1	Explain organization of data.			8.6			Quiz
8.2	Explain the grouping of data						Test
8.3	Explain tabulation of data						Assignment
8.4	Analyse the data result obtained in 7.6 above						
8.5	8.5 Present the result of the analysis in 8.4 above						
General Objective: 9: Understand the presentation of research report							
Specific Learning Objectives		Teachers Activities	Learning Resources	Specific Learning Objectives	Teachers Activities	Learning Resources	Evaluation
9.1	Explain the general format of a research report, e.g.			9.4			Quiz
-	Preliminaries e.g. preface and foreword						Test
-	Approval page						Assignment
-	Title page						
-	Dedication						

-	Acknowledgement						
-	Table of contents						
-	List of illustrations e.g. maps/pictures, diagrams, figures and tables						
-	Introduction						
-	Aims and Objectives						
-	Limitations and Delineations						
-	Main text						
-	Conclusions and Recommendations						
-	The Appendix						
-	Glossary						
-	Bibliography/References						
9.2	Explain the use of footnotes references and bibliography						
9.3	Outline the use of abbreviations in citation						

PROGRAMME: GENERAL STUDIES

COURSE TITLE: COMMUNICATION IN ENGLISH IV

CODE: GNS 401

DURATION: 2 HOURS PER WEEK (30 HOURS PER SEMESTER)

CREDIT UNITS: 2.0

GOAL(S): At the end of this course the student is expected to be fully equipped to fit into all establishments requiring extensive use of communication skills for general and specific purposes.

GENERAL OBJECTIVES:

On completion of this course the student should:

1.0 Comprehend the theory and practice of communication.

2.0 Know the concept of organisational communication.

	General Objective: 1.0 Comprehend the theory and practice of communication			General Objective:		
WEEK	Specific Learning Objective	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Learning Resources
1	On completion of this course the student should: Theory and Practice of Communication 1.1 Define communication	heory and Practice of Communication 1.1 Define communication				
2	1.2 Explain communication theory	1.2 Explain communication theory				
3	1.3 Analyse in detail the communication process	1.3 Analyse in detail the communication process				

4	1.4 Explain the different methods of communication, e.g. oral, written, non-verbal, etc.	1.4 Explain the different methods of communication, e.g. oral, written, non-verbal, etc.				
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	General Objective: 2.0 Know the concept of organisational communication			General Objective:		
WEEK	Specific Learning Objective	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Learning Resources
	Organisational Communication	Organisational Communication				
	2.1 Explain directions of	2.1 Explain directions of				

5	communication flow, viz., internal(vertical, horizontal, diagonal, quasi vertical) and external	communication flow, viz., internal(vertical, horizontal, diagonal, quasi vertical) and external				
6	2.2 Differentiate inter-personal and intra-personal communication	2.2 Differentiate inter-personal and intra-personal communication				
7	2.3 Classify communication variables by content, source, channel, receiver, message, and effect	2.3 Classify communication variables by content, source, channel, receiver, message, and effect				
8	2.4 Analyse critically the barriers to effective communication	2.4 Analyse critically the barriers to effective communication				
9	2.5 Analyse non-verbal communication, viz., kinesics proxemics, paralanguage and chronemics	2.5 Analyse non-verbal communication, viz., kinesics proxemics, paralanguage and chronemics				

10	2.6 Demonstrate the use of the concepts in 2.5 above in a given hypothetical communication situation	2.6 Demonstrate the use of the concepts in 2.5 above in a given hypothetical communication situation				
11	2.7 Explain the impact of certain variables on communication, e.g. environment, power, status, role	2.7 Explain the impact of certain variables on communication, e.g. environment, power, status, role				
12	2.8 Explain the procedures for communicating in debates, meetings, seminars and conferences	2.8 Explain the procedures for communicating in debates, meetings, seminars and conferences				
13	2.9 Organise debates, meetings, seminars, interviews and conferences	2.9 Organise debates, meetings, seminars, interviews and conferences				
14	2.10 Explain theories of leadership	2.10 Explain theories of leadership				

	2.11 Explain leadership qualities	2.11 Explain leadership qualities				
15	2.12 Apply the principles of creative and creative thinking in conflict resolution	2.12 Apply the principles of creative and creative thinking in conflict resolution				

Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: CLINICAL DISEASES & DIET THERAPY II	Code: DST 421	Credit Hour: 3 Credit Unit:3
	Pre-requisite:	Theoretical: hours/week

Course main Goal: this course is designed to acquaint students with the knowledge and practical skills to utilize available and readily accessible foods in providing sustainable nutritious foods at the household

General Objectives:

On completion of the course, the student should be able to:

- 1.0 Know the disease of the liver and their dietary management.
- 2.0 Know diseases of the gall bladder and their dietary management
- 3.0 Know diseases of the pancreas and their dietary management.
- 4.0 Know diseases of the urinary tract and their dietary management
- 5.0 know metabolic diseases, their medical and dietary management
- 6.0 Know cardiovascular diseases and their dietary management.
- 7.0 Know musculo-skeletal diseases and their dietary management.

Programme: Higher National Diploma in Dental Surgery Technology						
Course Title: CLINICAL DISEASE AND DIET THERAPY II			Code: DST 421		CH:3	CU:3
General Objective 1.0: Know the disease of the liver and their dietary management.						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1 Outline the history of dietetics 1.2 Explain the functions and duties of the dietitian under the following headings; Administrative, Clinical, Therapeutic, Educational, Consultancy and Research	• Explain the history of a dietetics and the functions in dietitians’ admin, clinical, the repentic, edu. Consultancy & research	• Textbooks, • Lecture notes	1.1 Understand the function in each of 1.2 above.		• List the function of a dietitian in each of 1.2 above.

General Objective 1.0: Know disease of the liver and their dietary management. [contd]						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>2.1 List the diseases of Gastro-Intestinal Tract (GIT)</p> <p>2.2 Explain the dietary management of GIT</p> <p>2.3 Describe the anatomy and Physiology of the liver.</p> <p>2.4 List the disease of the liver e.g. hepatitis, cirrhosis of the liver, hepatic encephalopathy, etc.</p> <p>2.5 Describe diseases of the liver</p>	<ul style="list-style-type: none"> • Explain and list the diseases of GIT • Explain the dietary management of GIT • Describe the anatomy and physiology of the liver • List and describe diseases of the liver. 	<ul style="list-style-type: none"> • Textbooks Lecture Note, pictures, Audio Visual Posters 	<ul style="list-style-type: none"> • Textbooks Lecture Note, pictures, Audio Visual Posters 		<ul style="list-style-type: none"> • List the diseases of GIT • List the diseases of the liver

	<p>in 2.4 above under the following headings:</p> <p>aetiology, signs, symptoms, prognosis, biochemical diagnosis, diet indication, rationales for diet indication, diet plan, diet preparation.</p> <p>2.6 Plan a suitable diet for each disease in 2.4 above.</p> <p>2.7 Prepare each of the diets suitable for the management of the diseases in 2.4 above</p> <p>2.8 Calculate the nutrients content of the diets in each</p>	<ul style="list-style-type: none"> • Explain the method and calculate the nutrients contents of the diets in each of 2.7 above. 				<ul style="list-style-type: none"> • Plan and prepare a sample menu using locally available resources in their various community for each of 2.4 above.
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	<p>of</p> <p>2.7above</p> <p>2.9. Carry out sensory evaluation</p> <p>of each of the diets in each of</p> <p>2.7 above.</p>					
General Objective 2.0: Know diseases of the gall bladder and their dietary management.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>3.1 Describe the anatomy and physiology of the bladder</p> <p>3.2 List the diseases of the gall bladder.e.g gall stones, etc.</p> <p>3.3 Describe each of the disease in 3.2 above under the following heading:-</p>	<ul style="list-style-type: none"> Figure that will explain the structure of the bladder List and describe each of the diseases of the gall bladder. 	<ul style="list-style-type: none"> Textbooks, Lecturer note, figures, audio-visual 	<ul style="list-style-type: none"> List and explain the disease of gall bladder 		<ul style="list-style-type: none"> List the disease of the gall bladder. Describe each of

	<p>aetiology, sign and symptoms, prognosis, biochemical diagnosis, diet indications, rational for diet indications</p> <p>Plan suitable diet for each of the diseases in 3.3 above Prepare each of the diets planned in 3.4 above.</p> <p>3.6 Calculate the carbohydrate, protein, fat and important vitamin content of each of the diets prepared in 3.5 above</p>	<ul style="list-style-type: none"> • Plan a sample menu for 3.3 above • Calculate the nutrient value of each of the diets prepared in 3.5 above 		<ul style="list-style-type: none"> • Prepare a sample menu. • Calculate the nutrient value of the diets prepared in 3.5 above 		<p>the disease that affect the gall bladder.</p>
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General Objective 3.0 : Know diseases of the pancreas and their dietary management.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	3.1 Explain diseases of the pancreas and their dietary management.	<ul style="list-style-type: none"> • Explain the anatomy and physiology of the pancreas • List and explain diseases of the pancreases • Plan a sample menu for each of the diseases of the pancreases. • Calculate the nutritive value of sample menu in 4.4 	<ul style="list-style-type: none"> • Textbook, lecturer note, figure, chart, pictures, food samples 	<ul style="list-style-type: none"> • List and explain diseases of the pancreas using the following headings 4.3 above 		<ul style="list-style-type: none"> • List and explain the diseases of the pancreases • List the food items required to prepare a menu for each of the diseases.

General Objective 4.0: Know diseases of the urinary tract and their dietary management.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>4.1 Describe the anatomy and physiology of the urinary tract.</p> <p>4.2 List the diseases of the urinary tract.</p> <p>4.3 Describe each of the diseases in 4.2 above under the following headings:- aetiology, signs and symptoms, prognosis, biochemical diagnosis, diet indication, rational for diet</p>			<p>List and explain the diseases of the Urinary tract.</p> <p>Discuss each of the diseases in 4.2 using the headings in 4.3</p> <p>Plan and prepare a suitable diet for the management of patients of urinary tract infection.</p> <p>Calculate the nutritive value of the prepared diet in 5.5 above.</p>	<p>• Plan and</p>	<ul style="list-style-type: none"> • Mention the parts of the UT • List and Explain the methods

	<p>indication</p> <p>4.4 Plan suitable diet for the management of patients of urinary tract infection</p> <p>4.5 Prepare each of the diets in 4.4 above.</p> <p>4.6 Calculate the carbohydrate, protein, fat, vitamins and mineral,salts content in each of the diets in 5.5 above</p> <p>4.7 Carry out sensory evaluation of each of the diets in 5.4. above.</p>			<p>Tests and comment on the each of the sample menu in 5.4</p>	<p>prepare a suitable diet for the management of patients with UTI</p>	<p>involve in the preparation of diet for the managements of patients with UTI</p>
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General Objective 5.0: Understand in-born errors of metabolism.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>Inborn Errors of Metabolism</p> <p>5.1 Explain in-born errors of metabolism</p> <p>5.2 Identify in-born errors of metabolism e.g phenylketonuria (PKU) Hyperphenylaniaemia, Tyrosinaemia, Homocystinuria,</p>	<p>Prepare presentations , lesson plans instructional materials, and evaluation techniques to</p> <p>i)Explain in-born errors of metabolism</p> <p>ii) Identify in-born errors of metabolism e.g phenylketonuria (PKU) Hyperphenylaniaemia, Tyrosinaemia, Homocystinuria, Histidinaemia, maple syrup, Galactosaemia, Fructose intolerance, Glycogen storage disorders etc.</p>	<p>Prepare presentations , lesson plans instructional materials, and evaluation techniques to</p> <p>i)Explain in-born errors of metabolism</p> <p>ii) Identify in-born errors of metabolism e.g phenylketonuria (PKU) Hyperphenylaniaemia, Tyrosinaemia, Homocystinuria, Histidinaemia, maple syrup, Galactosaemia, Fructose intolerance, Glycogen storage disorders etc.</p>	<p>Prepare presentations , lesson plans instructional materials, and evaluation techniques to</p> <p>i)Explain in-born errors of metabolism</p> <p>ii) Identify in-born errors of metabolism e.g phenylketonuria (PKU) Hyperphenylaniaemia, Tyrosinaemia, Homocystinuria, Histidinaemia, maple syrup, Galactosaemia, Fructose intolerance, Glycogen storage disorders etc.</p>	<p>Prepare presentations , lesson plans instructional materials, and evaluation techniques to</p> <p>i)Explain in-born errors of metabolism</p> <p>ii) Identify in-born errors of metabolism e.g phenylketonuria (PKU) Hyperphenylaniaemia, Tyrosinaemia, Homocystinuria, Histidinaemia, maple syrup, Galactosaemia, Fructose intolerance, Glycogen storage disorders etc.</p>	<p>Prepare presentations , lesson plans instructional materials, and evaluation techniques to</p> <p>i)Explain in-born errors of metabolism</p> <p>ii) Identify in-born errors of metabolism e.g phenylketonuria (PKU) Hyperphenylaniaemia, Tyrosinaemia, Homocystinuria, Histidinaemia, maple syrup, Galactosaemia, Fructose intolerance, Glycogen storage disorders etc.</p>

	Histidinaemia, maple syrup, Galactosaemia, Fructose intolerance, Glycogen storage disorders etc.					
	5.3 Describe the biochemical mechanism in each of the errors in 1.2 above under the following headings: nutrient involved, metabolic pathway and biochemical implication	iii)Using a table ,describe the biochemical mechanism in each of the errors in 1.2 above under the following headings: nutrient involved, metabolic pathway and biochemical implication	iii)Using a table ,describe the biochemical mechanism in each of the errors in 1.2 above under the following headings: nutrient involved, metabolic pathway and biochemical implication	iii)Using a table ,describe the biochemical mechanism in each of the errors in 1.2 above under the following headings: nutrient involved, metabolic pathway and biochemical implication	iii)Using a table ,describe the biochemical mechanism in each of the errors in 1.2 above under the following headings: nutrient involved, metabolic pathway and biochemical implication	iii)Using a table ,describe the biochemical mechanism in each of the errors in 1.2 above under the following headings: nutrient involved, metabolic pathway and biochemical implication
	5.4 Explain each of the errors in 1.2 above under the following	iv)Explain each of the errors in 1.2 above under the following headings: aetiology, signs and symptoms, medical treatment, prognosis, dietary treatment v)Identify in-born	iv)Explain each of the errors in 1.2 above under the following headings: aetiology, signs and symptoms, medical treatment, prognosis, dietary treatment v)Identify in-born	iv)Explain each of the errors in 1.2 above under the following headings: aetiology, signs and symptoms, medical treatment, prognosis, dietary treatment v)Identify in-born	iv)Explain each of the errors in 1.2 above under the following headings: aetiology, signs and symptoms, medical treatment, prognosis, dietary treatment v)Identify in-born	iv)Explain each of the errors in 1.2 above under the following headings: aetiology, signs and symptoms, medical treatment, prognosis, dietary treatment v)Identify in-born

	headings: aetiology, signs and symptoms, medical treatment, prognosis, dietary treatment 5.5 Identify in-born errors of metabolism by clinical diagnosis 5.6 Prepare suitable diets for of each of the treatment of errors in 1.2 above using locally available foods.	errors of metabolism by clinical diagnosis	errors of metabolism by clinical diagnosis	errors of metabolism by clinical diagnosis	errors of metabolism by clinical diagnosis	errors of metabolism by clinical diagnosis
General Objective 6.0: Know cardiovascular diseases and their dietary management.						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	6.1 Explain cardiovascular diseases and their dietary management	wDescribe cardiovascular diseases and their dietary management		To describe cardiovascular diseases and their dietary management		Describe cardiovascular diseases and their dietary management
General Objective 7.0: Know musculo-skeletal diseases and their dietary management						

Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	7.1 Explain musculo-skeletal diseases and their dietary management	<ul style="list-style-type: none"> Describe Musculo-Skelatal diseases including those affecting teeth. 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> To Describe Musculo-Skelatal diseases including those affecting teeth. 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Describe Musculo-Skelatal diseases including those affecting teeth.

Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: RESTORATIVE DENTISTRY II	Code: DST 422	Credit Hour: 4 Credit Unit:4
	Pre-requisite:	Theoretical: hours/week
Year: TWO Semester: ONE		Practical : hours/week

Course main Goal: this course is designed to enable students acquire basic knowledge on Restorative Dentistry.

General Objectives:

On the completion of the course, the student should be able to:

1. Understand basic knowledge of Inlays and Onlays
2. Understand basic knowledge of Impression materials and Impression techniques
3. Acquire basic knowledge of fixed prosthesis (Bridges)
4. Have basic knowledge of removable prosthesis (Denture)
5. Understand Dental Implants
6. Appreciate Digital Impression Techniques CAD/CAM

Programme: HIGHER National Diploma in Dental Surgery Technology						
Course Title: RESTORATIVE DENTISTRY II			Code: DST 422		CH:4 CU:4	
General Objective 1.0 : Understand basic knowledge of Inlays and Onlays						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.1 Define Inlay	Explain the term Inlay	Audio-visuals, computer based supports such as slides and projectors, videos, textbooks, posters, pictures, internet.	Identify Inlays and its indications.	Explain Inlays to students.	Students should explain Inlays and its indications.
	1.2 List indications of Inlays	Explain indications of Inlays.		Identify Onlays and its indications	Explain Onlays to students	Students should explain Onlays and its indications
		1.3 Define Onlays		Explain the term Onlays		
		Explain the indications of Onlays				

	1.4 Explain the indications of Onlays					
General Objective 2.0 : Understand basic knowledge of Impression materials and Impression techniques						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2	<p>1.1 Define Impression materials</p> <p>1.2 List types of Impression materials</p> <p>1.3 List Armamentarium for Impression materials</p>	<p>Explain Impression materials</p> <p>Explain types of Impression materials</p> <p>Explain Armamentarium for Impression materials</p>	<p>Audio-visuals, computer based supports such as slides and projectors, videos, textbooks, posters, pictures, internet</p>	<p>Demonstrate Impression making using different types of materials</p> <p>Demonstrate different techniques used in Impression making.</p>	<p>Demonstrate Impression making using different types of materials.</p> <p>Describe Armamentarium for Impression materials</p> <p>Demonstrate different techniques used in Impression making.</p>	<p>Students should identify different types of impression materials and list different types of Impression techniques.</p> <p>Students should list Armamentarium for Impression making.</p>

	1.4 Define Impression techniques	Explain Impression techniques				
	1.5 List types of Impression techniques	Explain types of Impression techniques				
General Objective 3.0 : Acquire basic knowledge of fixed prosthesis (Bridges)						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation

1-2	1.1 Define fixed prosthesis (Bridges)	Explain the term fixed prosthesis (Bridges)	Audio-visuals, computer based supports such as slides and projectors, videos, textbooks, posters, pictures, internet.	Identify fixed prosthesis (Bridges) and its indications	Explain fixed prosthesis (Bridges) to the students	Students should explain fixed prosthesis (Bridges) and its indications
	1.2 List the indications of fixed prosthesis (Bridges)	Explain the indications of fixed prosthesis (Bridges)				
	1.3 List types of fixed prosthesis (Bridges)	Explain types of fixed prosthesis (Bridges)				
General Objective 4.0 : Have basic knowledge of removable prosthesis (Denture)						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation

1-2	1.1 Define removable prosthesis (Denture)	Explain the term removable prosthesis (Denture)	Audio-visuals, computer based supports such as slides and projectors, videos, text books, posters, pictures, internet.	Identify removable prosthesis (Denture) and its indications	Explain removable prosthesis (Denture) to the students	Students should explain removable prosthesis (Denture)and its indications
	1.2 List the indications of removable prosthesis (Denture)	Explain the indications of removable prosthesis (Denture)				
	1.3 List the types of dentures	List the types of Dentures				
General Objective 5.0 : Understand Dental Implants						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation

1-2	1.4 Define Dental Implants	Explain the term Dental Implant	Audio-visuals, computer based supports such as slides and projectors, videos, books, posters, pictures, internet and typhodont	Identify Dental Implants and its indications	Explain Dental Implant to the students, its indications, criteria for placement, instruments, placement, procedure/protocol and post-operative instructions.	Students should explain Dental Implant, types and its indications
	1.2 Explain the indications of Dental Implants	Explain the indications of Dental Implants		Identify types of Dental Implants		Students should explain the instrumentation procedures and post-operative instructions for Dental implant placement
	1.3. List types of Dental Implants	Explain types of Dental Implants				
	1.4. Describe procedures/ protocol observed in dental implant placement.	List and explain procedures and instruments for Dental Implants		Identify procedures, instruments and post-operative instructions for Dental Implants		
	1.5 List instrument used in dental implant placement:					

	<ul style="list-style-type: none"> • Periosteal elevator • Surgical blade holder etc. <p>1.6 Give post-operative instructions to clients/patient for Dental Implants placement.</p>					
General Objective 6.0 : Appreciate Digital Impression Techniques CAD/CAM						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation

1-2	<p>1.1 Define CAD/CAM Techniques.</p> <p>1.2 List the indications/applications</p>	<p>Explain CAD/CAM techniques</p> <p>Explain the indications/applications.</p>	<p>Audio-visuals, computer based supports such as slides and projectors, videos, books, posters, pictures, internet and charts.</p>			<p>Students should identify CAD/CAM techniques, indications/applications.</p>
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Programme: Higher National Diploma in Dental Surgery Technology		
Course Title: CLINICAL POSTING IV	Code: 423	Credit Hour: 6 Credit Unit:6
	Pre-requisite:	Theoretical: hours/week
Year:2 Semester: 1		Practical : hours/week

Course main Goal: this course is designed to enable students acquire practical knowledge about patients handling in

all units of dentistry and clinical activities

General Objectives:

On the completion of the course, the student should be able to:

- 7.0 Understand client- Dental staff relationship
- 8.0 Assessment of client/patient
- 9.0 Understand proper Dental record keeping
- 10.0 Understand Pre and Post-operative care
- 11.0 Identify instruments and material used Dentistry
- 12.0 Understand the concept of sterilization

Programme: National Diploma in Dental Surgery Technology						
Course Title: CLINICAL POSTING IV			Code: 423		CH:6 CU:6	
General Objective 1.0 : Understand client- Dental staff relationship						
Week	Specific Learning Outcomes	Teacher’s Activities	Resources	Specific Learning Outcomes	Teacher’s Activities	Evaluation
1-2	1.11 Take patient/client records 1.12 Counselling of patient/client. 1.13 Demonstrate good inter-personal relationship with colleagues 1.14 Demonstrate sound ethical behavior. 1.15 Take vital signs i.e BP, Pulse rate, Temperature.		Learning by observation in the clinic Use of video clips			Psychological assessment of patient, learn to make patient more comfortable Students to practice on themselves. Using and considering each other as patients. Obtain each other BP, Pulse rate, Temperature,

General Objective 2.0 : Assessment of client/patient						
Week	Specific Learning Outcomes	Teacher's Activities	Resources	Specific Learning Outcomes	Teacher's Activities	Evaluation
1-2						

REQUIREMENTS

S/N	FACILITIES	EQUIPMENT	NUMBERS
1	LABORATORIES 1. Dental Clinic 2. Studio/Drawing rooms 3. Resident Dental Surgeon	1 1 1	1 1 1
2	EQUIPMENTS/INSTRUMENTS		
	A. CONSERVATIVE INSTRUMENTS	<ul style="list-style-type: none"> • Amalgam Carvers • Enamel Hatchets • Excavators 	20 20 20

		<ul style="list-style-type: none"> • Root Canal Instruments 	20
		<ul style="list-style-type: none"> • Spatulas 	20
		<ul style="list-style-type: none"> • Filling Instruments 	20
		<ul style="list-style-type: none"> • Composite Instruments 	20
		<ul style="list-style-type: none"> • Utility & Crown Instruments- 	20
		<ul style="list-style-type: none"> • Syringes 	20
		<ul style="list-style-type: none"> • Gum Scissors 	20
		<ul style="list-style-type: none"> • Needles Holders 	20
		<ul style="list-style-type: none"> • Tissue & Dressing Pliers 	20
		<ul style="list-style-type: none"> • Rubber dam Instruments 	20
		<ul style="list-style-type: none"> • Clamp forceps 	20
	B. ORTHODONTIC INSTRUMENTS	<ul style="list-style-type: none"> • Mirrors 	20
		<ul style="list-style-type: none"> • Straight Probe 	20
		<ul style="list-style-type: none"> • Cotton Pliers 	20
		<ul style="list-style-type: none"> • Mobilization Appliances 	20
		<ul style="list-style-type: none"> • Wire 	20
		<ul style="list-style-type: none"> • Bands 	20
		<ul style="list-style-type: none"> • Splints 	20
		<ul style="list-style-type: none"> • Wire Cutter 	20
		<ul style="list-style-type: none"> • Ligature Cutter 	20
		<ul style="list-style-type: none"> • Distal end Cutters 	20
		<ul style="list-style-type: none"> • Mathien Plier 	20
		<ul style="list-style-type: none"> • Seperating pliers 	20
		<ul style="list-style-type: none"> • Band Pusher 	20
		<ul style="list-style-type: none"> • Plastic Filling Instrument 	20
		<ul style="list-style-type: none"> • Posterior Band Remover 	20
		<ul style="list-style-type: none"> • Bracelet Holder or bracket tweezer 	20
	C. PENODENTAL INSTRUMENTS	<ul style="list-style-type: none"> • Probes (different types) 	20
		<ul style="list-style-type: none"> • Tweezer 	25
		<ul style="list-style-type: none"> • Dental Mirror 	25

	D. DIAGNOSTIC INSTRUMENTS	• Dental Mirrors	25
		• Probes	25
	E. PROSTHETIC INSTRUMENTS	• Mixing Bowl	20
		• Spatula	20
		• Dispensing Gums	20
		• Impression tray(upper&lower)	20
		• Individual tray	20
		• Alginate impression Materials	As many as possible
		• Retraction Cord	20
		• Crown & Bridge Scissors	20
		• Crown removing Forceps	20
		• Contouring Pliers	20
		• Shade Guide	20
		• Modelling way	20
		• Wax Knife	20
		• Diamond Burs	20
		• Articulator	10
	F. <u>SURGICAL INSTRUMENTS</u>	• Towel clips	20
		• Mouth gag	20
		• Cheek retractor	20
		• Periosteal elevator	20
		• Elevator	20
		• Bone file	20
		• Stackless steel scalpel handle	20
		• Scalpel blade	20
		• Trimmer	20
		• Surgical curette/ spoon curette-	20
		• Curved surgical scissors	20
		• Straight surgical scissors	20
		• Extraction forcep	20

		<ul style="list-style-type: none"> • Suction tubes- 20 	20
		<ul style="list-style-type: none"> • Anaesthetic syringe 	20
		<ul style="list-style-type: none"> • Surgical aspiration 	20
		<ul style="list-style-type: none"> • Bone chisel 	20
		<ul style="list-style-type: none"> • Suturing materials 	20
	G. <u>X-RAY ROOM</u>	<ul style="list-style-type: none"> • Auto X-ray processor 	4
		<ul style="list-style-type: none"> • Manual X-ray processor 	4
		<ul style="list-style-type: none"> • X-ray Machine 	2
		<ul style="list-style-type: none"> • Film hangers 	20
		<ul style="list-style-type: none"> • Lead aprons/gowns 	4
		<ul style="list-style-type: none"> • Reagents 	
		<ul style="list-style-type: none"> • x-ray films 	As many as possible
	H. <u>DENTAL CLINIC</u>	<ul style="list-style-type: none"> • Dental chairs 	4
		<ul style="list-style-type: none"> • Examination set- dental mirrors- Probes Tweezers 	20 sets 20 sets 20 sets
		<ul style="list-style-type: none"> • Disposable bibs 	As many as possible
		<ul style="list-style-type: none"> • Thermometer 	10
		<ul style="list-style-type: none"> • Hypodermic syringes 	As many as possible
	I. <u>CONSUMABLES</u>	<ul style="list-style-type: none"> • Cottonwool 	
		<ul style="list-style-type: none"> • Dycal 	
		<ul style="list-style-type: none"> • Zincoxide eugenel 	
		<ul style="list-style-type: none"> • Gauze 	
		<ul style="list-style-type: none"> • Cotton rolls 	
		<ul style="list-style-type: none"> • Disposable suction tips 	
		<ul style="list-style-type: none"> • Hand gloves 	
		<ul style="list-style-type: none"> • Face mask 	
		<ul style="list-style-type: none"> • Disinfectants. 	
	J. <u>STERILIZATION ROOM</u>	<ul style="list-style-type: none"> • Digital Autoclave 	

		<ul style="list-style-type: none"> • Water boiling sterilization system- 	
	WORKSHOP/FIELD FACILITIES	<p>Dental Departments at all General Hospital, state hospital and Teaching Hospitals in each state where training institution are located are recommended for workshop/field facilities for the students</p> <p>The institution should have M.O.U with the centers to use their facilities for the students' practical experience.</p>	
	TEACHING STAFF QUALIFICATIONS	<p>Teaching staff consists of Lecturers and instructors. A lecturer should possess a minimum and good honors degree or equivalent plus adequate number of year a teaching and industrial experience.</p> <p>An instructor should possess a minimum of a good higher national Diploma or equivalent and commendable number of years of teaching in industrial experience</p>	
	TEACHING STAFF (TECHNOLOGISTS AND TECHNICIANS)	<p>These ones are the technically qualified staff that are not involved in direct lecturing/instructing, but who provide virtual and indispensable services in the laboratories, workshop, dental clinic, school, use of machinery and equipment and other field facilities.</p> <p>The Technicians should possess ND OR Equivalent and are to be under supervision of technologies who should possess HND or equivalent qualification. Also, admitants and attendants are to be attached to each facility to ensure proper upkeep.</p>	

	ADMINISTRATIVE STAFF	<p>Secretary possess an ND or HND equivalent in office technology and management and should be the department secretary responsible to the HOD for proper academics and administrative record keeping in the department. Clerical officer to assist the secretary should possess a minimum of GCE “O” Level, SSCE or equivalent.</p> <p>A clerical messenger should also be available in the departmental office (where applicable)</p>	
	HEAD OF DEPARTMENT	<p>Head of department should possess a minimum of a good honors degree and higher degree or equivalent in the programme discipline registered with the relevant professional body. Should be of a rank not lower than Senior lecturer with not less than 10 years’ post-graduation experience at ND level.</p> <p>And at HND level at least a principal lecturer with not less than 13 years post qualification experience, should be competent in academic and administrative matters.</p>	
	CLASSROOMS/LECTURE THEATRE	<p>Classrooms should be well ventilated, furnished and provided with ceiling fans, lighting, marker boards etc.</p> <p>Studio visuals and public address system should be provided.</p>	
	STAFF OFFICE ACCOMODATION	<p>Office accommodation should be spacious, furnished into chairs and tables, filing cabinets, book shelf. The office should be well ventilated and fans or air</p>	

		<p>conditioner be provided.</p> <p>HOD's office should be adequately furnished, air conditioned, floor tiled or carpeted</p> <p>There should be an attached office for the secretary & other support staff.</p>	
	LIBRARY	<p>Current textbooks, periodicals/ journals (local and international) reference materials, E- resources & non book materials relevant to the programme should be adequate.</p> <p>Good shelves should be made where the books will be displayed and this should be properly labelled.</p>	

List of participants.

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