

**PROSPECTUS OF THE SCHOOL OF DENTISTRY
COLLEGE OF MEDICAL SCIENCES
UNIVERSITY OF BENIN, BENIN CITY**

A BRIEF HISTORY OF THE SCHOOL

The School of Dentistry (as it was known then) started in 1976 and the first batch of students was admitted in the 1977/78 session. It was established as an integral part of the College of Medical Sciences in 1975 by an amendment to the Edict establishing the University of Benin. The College was composed of two Schools and one Institute viz:-

- i. *School of Medicine*
- ii. *School of Dentistry*
- iii. *The Institute of Child Health*

The College of Medical Sciences was changed to College of Health Sciences in 1992 and the Schools were changed to Faculties with Pharmacy as part of the College of Health Sciences. In 1993, the Collegiate System was scrapped in the University of Benin, but was re-introduced in September 1999 only in respect of College of Medical Sciences.

From the beginning, eight Departments were approved for the School of Dentistry viz:-

1. *Department of Oral Surgery/Pathology including Oral Medicine and Oral Pathology*
2. *Department of Conservative Dentistry*
3. *Department of Prosthetic Dentistry*
4. *Department of Community Dental Health*
5. *Department of Paedodontics*
6. *Department of Orthodontics*
7. *Department of Periodontics*
8. *Department of Oral Diagnosis/Radiology*

Due to the dearth of academic staff, the eight Departments were merged into four Departments until such a time when the academic staffing position improves. However, in 1993 the Department of Oral Diagnosis/Radiology was removed from the Department of Surgery/Pathology to make the fifth Department in the School of Dentistry.

ACTUAL AND ENVISAGED ACADEMIC DEVELOPMENT IN THE SCHOOL OF DENTISTRY

ESTABLISHMENT OF OROFACIAL RESEARCH CENTER (ORC)

The School has recently set up the ORC under the Dean's office to articulate the collection, collation and dissemination of oral health information in Edo State and South- South geopolitical zone, and participate in collaborative research and training within and outside Nigeria.

EXPANSION OF ACADEMIC DEPARTMENTS

Due to improvement and availability of highly skilled and qualified academic staff over the years, the School of Dentistry desires the take off of the Departments already approved by the University at the very beginning of the B.D.S. programme and in addition, to recognize Oral Biology and Oral Pathology as an independent Department, thus bringing the total Department to nine (09).

DEANS FROM INCEPTION TO DATE

The following are the Deans of the School from inception to date:

<u>DATE</u>	<u>INCUMBENT</u>
1976 – 1978	Prof. A.O. Ejide
1978 – 1980	Prof. A.O. Ejide
1980 – 1981	Dr. D. C. Nornoo (Coordinator)
1981 – 1983	Dr. (Mrs.) A. Osuhor (Coordinator)
1983 – 1984September	Dr. (Mrs.) A. Osuhor (Ag Dean)
1984 – 1988	Prof. A.O. Ejide
1988 – 1989	Prof. R. O. Ofoegbu (Provost & Ag Dean)
1989 – 1991	Dr. D. Ufomata (Ag Dean)
1991 – 1992	Dr. (Mrs.) A. A. Umweni (Coordinator)
1992 – 1993	Prof. A.O. Ejide (Coordinator)

1993 – 1999	Prof. D Ufomata (Dean)
1999 – 2004	Dr. M. A. Ojo (Ag Dean)
2004 – 2006	Dr. O. Akpata (Ag Dean)
2006 – 2008	Prof. M.A. Ojo (Dean)
2008 – 2009	Dr. O. N. Obuekwe (Ag Dean)
2009 – 2011	Prof B.D.O. Saheeb (Dean)
2011 to Date	Prof. (Mrs.) A.A. Umweni (Dean)

PHILOSOPHY AND OBJECTIVES OF THE SCHOOL

At the end of the University of Benin B.D.S programme, the dental graduate would have acquired pre-requisite knowledge, attitudes and skills that will enable him to:

- a. *Function as a broad based general duty dental officer in any part of Nigeria.*
- b. *Identify the country's present and future dental problems, search for information to manage or resolve them and implement relevant programmes in preventive dental health care.*
- c. *Manage common dental emergencies.*
- d. *Integrate the practice of preventive dentistry in all his professional work.*
- e. *Collaborate with a health team and if necessary act as the leader of the team.*
- f. *Persevere in continuing self-education, recognizing his educational needs and selecting appropriate learning and evaluation resources.*
- g. *Have sufficient grounding in the basic medical sciences and scientific method so that he is capable of benefitting from further vocational training to become a specialist.*
- h. *Practice his profession always with high ethical standards and administrative integrity.*
- i. *Perform at a level sufficiently high to be recognized as a dental surgeon trained to international standards.*

ENTRY REQUIREMENT FOR ADMISSION INTO THE SCHOOL OF DENTISTRY

A. ADMISSION REQUIREMENT FOR THE SIX (6) YEAR DEGREE PROGRAMME (UME)

- i. Candidates should possess at least FIVE (5) CREDIT PASSES at the ordinary level at GCE/Wasc, SSCE, NECO or its recognized equivalent, at not more than two (2) sittings. This must include English, Mathematics, Physics, Chemistry, and Biology.
- ii. UME SUBJECTS ARE:
Use of English, Physics, Chemistry, and Biology

B. ADMISSION REQUIREMENT FOR THE FIVE (5) YEAR DEGREE PROGRAMME (DIRECT ENTRY)

In addition to A (i) above, candidates should possess:

- i. At least THREE (3) ADVANCED level passes in Physics, Chemistry and Biology or Zoology at GCE or HSC at not more than two sittings
- ii. An honours Degree not lower than second class from a recognized University in the following:
 - a. B.Sc. Biological Sciences (Biochemistry, Microbiology, Chemistry & Biology);
 - b. B.Sc. Physical Sciences (Chemistry, Physics);
 - c. B.Sc. Medical Sciences (Anatomy, Physiology, Nursing, Med. Lab. Tech);
 - d. B.Sc. or OD Optometry
 - e. B. Pharm (Pharmacy) or Pharm D

ACADEMIC PROGRESSION

- i. **Student Academic Status:** A student's academic status shall be determined on the basis of his/her performance at the end of the semester examinations. The following categorization shall be used.
- ii. **Good Standing:** To be in good standing a student must, in each semester have a Cumulative Grade Point Average (CGPA) of not less than 1.00.
- iii. **Probation:** A student whose Cumulative Grade Point Average is below 1.00 at the end of a particular year of study, earns a period of probation for one academic session, but such student shall be permitted to take the supplementary examination in the failed course unit (s).

A student on probation is allowed to register for courses at the next higher level in addition to his/her probation level courses provided that:

- a. *The regulation in respect of student work load is complied with; and*
- b. *The pre-requisite courses for the higher-level courses have been passed.*

Students who transfer from other Universities shall be credited with only those courses deemed relevant to the programmes, which they have already passed prior to their transfer. Such students shall, however, be required to pass the minimum number of units specified for graduation for the number of sessions he/she spent in the School provided that no student shall spend less than two years (4 semesters) in order to earn a degree. Students who transfer for any approved reason shall be credited with those units passed that are within the curriculum. Appropriate decision on transfer cases shall be subject to the approval of Senate on the recommendation of the School.

DEGREE REQUIREMENTS

1. *Candidates who have been admitted to the B.D.S. Degree Course must:-*
 - i. *Follow the approved course of study for a minimum of 12 semesters for those admitted into 100 level and 10 semesters for those admitted by direct entry into 200 level.*
 - ii. *Pass the required examinations as stipulated in the regulations.*
 - iii. *Pay all the prescribed fees promptly when required to do so.*
 - iv. *Comply with such other additional requirements and regulations that may be prescribed from time to time by the University of Benin.*
2. *All candidates are required to attend a minimum of 75% of each and every prescribed course before they are allowed to sit for the examination relevant to that course. A candidate who fails to meet this condition is considered to have failed the examination relevant to the course.*

BDS COURSE CREDIT SYSTEM

DEGREE AWARDED

On successful completion of the training programme, a candidate is awarded the degree of Bachelor of Dental Surgery (B.D.S.) of the University of Benin. The degree is not classified, but a student may pass with a distinction in individual subjects.

DURATION OF PROGRAMME

The minimum number of academic years required for the award of the degree shall be six years for candidates admitted by J.A.M.B examination to 100 level, and five years for candidates admitted by Direct Entry to 200 level.

MAXIMUM NUMBER OF YEARS TO OBTAIN THE BDS DEGREE

A student shall be expected to complete the Dental course and obtain the BDS Degree WITHIN 10 years of commencement of the BDS course. A student who after many repeat examinations including the final examinations fails to graduate WITHIN the above period shall be expected to WITHDRAW from the School unless SENATE grants a special dispensation.

REGULATIONS

University regulations for the course credit system will apply, except for modifications specified below, and any further modifications as approved by Senate from time to time.

COURSES

1. *All courses as listed are core-courses*
2. *Students are expected to attend all scheduled tuition programmes (lectures, practical, tutorials, seminars, clinics) –etc.*

Students who fail to register a minimum 75% attendance for a course will not be allowed to sit the examination for that course, and will be deemed to have failed the course. It is the student's responsibility to ensure that his/her attendance is properly recorded.

ABSENCE from scheduled programmes may be allowed under the following circumstances:-

- a. *Due to ill health- when supported by an approved medical certificate in accordance with the University Regulations.*

- b. *If permission has been granted in writing by a Head of Department in an emergency for not more than one day. The office of the Dean of the School must be informed immediately or during the next working day.*
- c. *If prior permission of the Dean has been obtained in writing, the Dean will require evidence that suitable arrangements have been made with the necessary departments for completing any part of the programme, which would be missed during the requested period of absence.*
- d. *Pre-requisites and co-requisites courses are listed in the schedule of courses.*

EXAMINATIONS AND ASSESSMENT

1. 100 level courses are conducted and examined by the Faculties of Physical and Life Sciences. The pass mark is 40%.
2. For courses in 200 to 600 level, the pass mark is 50%. A student, who scores 70% or above in a subject of the comprehensive examinations shall earn a pass with distinction, provided he has not had any repeat in the courses relevant to that subject (as determined by the subject prefixes).
3. For courses conducted by the departments of the School of Medicine, the examination and assessments will conform as far as possible with policy of those departments regarding operation of the course credit system, subject to the approval of the Board of studies of the School of Dentistry.
4. Head of Departments will strictly apply in-course assessments.
5. The number of credits, which must be obtained by each candidate at the various levels before proceeding to the next level as specified below:-

COURSE CREDIT LOAD

1. BDS 100 LEVEL

BOT	6 Credits
CHEM	12 Credits
PHY	8 Credits
ZOO	8 Credits
GST	10 Credits
TOTAL CREDITS	48

2. BDS 300 LEVEL

ANT	29 Credits
BCH	18 Credits
PHY	28 Credits
DOS (ORAL BIOLOGY)	16 Credits
TOTAL CREDITS	91

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BDS 400 LEVEL

OPERATIVE TECH 8Credits
PROSTH TECH 8 Credits
PCO 13 Credits
PAT 31 Credits
TOTAL CREDITS 60

4. BDS 500 LEVEL

MED 30 Credits
SUR 34 Credits
TOTAL CREDITS 64

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BDS 600 LEVEL

TOTAL CREDITS 96

LEVEL	TOTAL CREDITS	CREDITS TO PROCEED TO NEXT LEVEL	CUMULATIVE CREDITS
100	48	48 *	
200	–	–	48
300	91	91	139
400	60	60	199
500	64	64	263
600	96	96	359

***COMMENTS**

Must not fail more than one 4 credit course to move to 200 level (excluding G.S courses).

6. The pre-clinical courses are completed at the end of the 2nd Semester of 400 level. The repeat examination for 1st Semester courses will be held in June at the same time as examinations for the 2nd Semester courses, so that the student would have passed the pre-clinical courses before proceeding to clinical courses. To proceed to the

clinical courses, a student must obtain a minimum combined total of 91 credits in the 300 level first and second Semester examinations.

7. At 400 and 500 levels, clinical courses are block postings taken throughout the session, including the summer vacation, and credits will be earned by September of the relevant year.

ACADEMIC PROGRAMME

The School of Dentistry undertakes courses in the following broad based major disciplines:-

1. Basic Science Subjects

Physics

Chemistry

Zoology

Botany

2. Basic Medical And Dental Courses

Genetics

Human Anatomy

Physiology

Biochemistry

Psychology

Oral Biology (Oral Anatomy, Oral Physiology & Oral Biochemistry)

Epidemiology

Biostatistics

Environmental Health

3. Pre-Clinical Dental Courses

Operative Dental Techniques

Prosthetic Techniques

4. Medical Laboratory and Clinical Courses

Pathology comprising the following

- a. Pathology (Morbid Anatomy and Histology)
- b. Microbiology and Immunology

- c. Haematology
- d. Chemical Pathology
 - Pharmacology
 - Surgery
 - Medicine

5. **Clinical Dental Courses**

Oral Medicine and Dental Therapeutics

Oral Diagnosis and Dental Radiology

Periodontology

Community Dentistry

Paedodontics

Orthodontics

Conservation (including Endodontics)

Prosthetic Dentistry

Oral/Maxillofacial Surgery

Oral Pathology

Other Courses

Primary Health Care

Health Management and Evaluation

Medical/Dental Ethics and Jurisprudence

General Studies Courses

General Studies (Sciences and Humanities)

Entrepreneurship

MODIFICATIONS OF THE REGULATIONS

1. Part 1 professional examination is now divided into Part IA & Part IB. The subjects for part IA shall be: - Anatomy, Physiology, Biochemistry to be held at the end of the first semester at 300 level. **Candidates who score less than 40% in two subjects will be required to withdraw.**

2. A candidate who fails any of the subjects shall repeat the subjects, at an examination to be held in 3 months.
3. Any candidate, who fails to complete the Part IA examination at the repeat examination, will be required to repeat the courses failed during the following year and will not proceed to Part IB courses. **Failure to pass the examination at this stage will lead to withdrawal from the School.**
4. The subject for Part IB shall be Oral Biology, to be held not more than three (3) months after the Part IA repeat examination.
5. Candidates who fail shall repeat the subject at an examination to be held not more than three (3) months later. Candidates, who fail at this repeat (Oral Biology), will repeat the year and will not be allowed to proceed to Part IIA examination. **All candidates repeating the year who fail to pass the Part IB shall be asked to withdraw from the School.**
6. The subjects for the Part IIA Examination shall be Operative Technique and Prosthetic Technique to be held at the end of first semester of 400 level. Candidates who fail in one or two subjects will be required to repeat the examination (subject (s) failed after not more than three (3) months. Candidates will not be allowed to proceed to clinical postings until they have passed the **Part IIA examinations**. A candidate who fails to pass the Part IIA examination at the repeat examination will be **required to repeat the year (courses) failed only. Failure to pass the Part IIA examination at this stage of repeat, will lead to withdrawal from the School.**
7. The subjects for the Part IIB examination shall be Pathology and Pharmacology to be held at the end of second semester of 400 level. Candidates who fail in one or two subjects will be required to repeat the examination (subject(s) failed) after not more than three (3) months.

Candidates will not be allowed to proceed to clinical postings until they have passed the **Part IIB examinations**.

A candidate who fails to pass the Part IIB examination at the repeat examination will be required to repeat the year. **Failure to pass the Part IIB examination at this stage of repeat will lead to withdrawal from the School. A candidate who fails the part IIB examination at the repeat examination will be required to repeat the year (courses) failed only. Failure to pass at this stage of repeat will lead to withdrawal from the School.**

8. Part III examination shall comprise General Medicine and General Surgery to be held at the end of second semester of 500 level. Candidates who fail in one or two subjects will be required to repeat the examination (subject(s) failed) after not more than three (3) months. A candidate who fails to pass the Part III examination at the repeat examination will be required to repeat the year (courses) failed. **Failure to complete the Part III examination at this stage of repeat will lead to withdrawal from the School.**

9. The Part IV (final) professional examination shall consist of 3 subject group to be held at the end of second semester of 600 level. The groups are made of Oral Surgery (consisting of Oral Surgery, Oral Pathology, Oral Radiology, Oral Medicine); Restorative Dentistry (consisting of Conservation, Prosthethics and Periodontology) and Preventive Dentistry (consisting of Preventive Dentistry, Community Dentistry, Ethics and Jurisprudence, Paedodontics and Orthodontics).

A pass in the practical clinical half of the Part IV examination is mandatory for passing the whole examination. A candidate who fails any group or groups of subjects will be required to repeat the examination (group failed) after not more than 3 months. A candidate who fails to complete the Part IV examination at the repeat examination will be required to repeat the year. **Failure to complete the Part IV examination at the end of the repeat year shall lead to withdrawal.**

SUMMARY

Every examination has a maximum of four (4) attempts excluding 100 level courses.

NOTE

A candidate will be deemed to have graduated from the School of Dentistry when the candidate has passed all prescribed examinations and therefore, has acquired all credits prescribed for the B.D.S. programme.

MATTERS RELATING TO THE CONDUCT OF EXAMINATIONS

These recommendations relate to activities performed during the actual conduct of examinations.

REGULATIONS GOVERNING THE CONDUCT OF UNIVERSITY EXAMINATIONS DISCIPLINE DURING EXAMINATIONS:

a INSTRUCTIONS TO THE INVIGILATORS:

- i 'Invigilator', refers to any Senior Staff member officiating during an examination and must not be one of the candidates of be examined. Course Teachers are invigilators of their courses and shall remain in the examination hall throughout the examination and collect the Scripts.
- ii There shall be a Chief Invigilator appointed by the Head of Department or the Dean preferably of the rank of Senior Lecturer and above. The role of the Chief Invigilator is to supervise and ensure that the conduct of the examinations Follows the laid down regulations. He/She shall make a report after the examination Using the approved format (See Annexure 1) The Course Teacher shall not be the Chief invigilator of the examination on his/her Course.
- iii It shall be the first duty of the Invigilators to exercise constant and vigilant .
Supervision
Over the Candidates. E Chief invigilator shall use his discretion when handing cases of

Misconduct and ill-health. They shall send a report on each to the Head of Department and the Dean of the Faculty Immediately after the examinations and definitely not more than 24 hours.

- iv An invigilator shall report to the Examination Hall 30 minutes before the examination is due to start. There shall be a minimum of one (1) invigilator per candidates.
- v The Chief invigilator or his assistant shall sign each Examination Answer Booklet before the commencement of each examination. This is to prevent illegal issuance of booklets for illicit examinations.
- vi Before the examination begins, the Chief invigilator shall announce to the Students that all foreign and forbidden materials should be removed from their persons and from the Hall.
- vii While the examination is in progress, no person other than the invigilators, the Attendant, Dean of the Faculty or his representative, Head of Department, the Registrar's representative (Exams & Records) and the Medical Personnel shall be allowed to enter the Hall.
- viii The time allowed for an examination paper as indicated in the Time-Table, must be strictly obeyed.
- ix Each of the sealed packets of Examination Paper must be opened in the presence Of the Candidates.
- x Immediately after a paper has been distributed to all candidates, the Chief Invigilator shall ask the Candidates to see that they have the papers for which they have been entered.. Then and only then shall the Chief Invigilator give a signal for the examination to start..
- xi Candidates shall be admitted into an examination up to the first half hour after the start of the examination on the permission of the Chief Examiner and the Faculty/ School Examination Officer who shall inform the Board of Examiners which shall Decide on the cases.

- xii It is essential that candidates enter and leave the Hall through one entrance to enable the Invigilators satisfy themselves that nothing which is unauthorized is brought in or taken out. No candidate may leave the Examination Hall without the express permission of the Chief Invigilator Candidates wishing to go to the Toilet or to the First-Aid Room must be accompanied by an Invigilator/Attendant.
- xiv No candidate may quit the Examination Hall until 30 minutes has elapsed. A Candidate who wants to leave before the end of the examination must drop his/her Question Paper and Scripts before leaving the Hall. No Question Paper shall be removed from the Hall before the first hour of the examination has elapsed.
- xv Reasonable silence shall be maintained throughout an examination by both the invigilators, other Officials and the Candidates.
- xvi Invigilators shall tell Candidates the time at appropriate intervals during the period of an examination.
- xvii At the close of each examination, Candidates shall be asked to hand over their Scripts to the Invigilators while standing. The Chief Invigilator with the assistance Of Invigilators shall count these over and add four copies of the Question Paper to the Packet of Scripts. The packets shall then be handed over to the Course Teacher who Shall verify and sign the receipt.
- xviii The Attendant shall be responsible for the circulation of the Attendance Register, which shall be collected by the Chief Invigilator at the end of each examination, one copy is to be returned to the Internal Examiner and one copy to Exams and Records Division.
- xiv No Candidate shall be allowed to depart from the Examination Hall without handing in his Scripts. The Chief Invigilator shall assign Invigilators the responsibility for collecting the Scripts from the Candidates who shall remain standing.

xx Any Candidate found to be or is suspected of infringing the provisions of regulations or in any way cheating shall immediately be given three (3) copies of Examination Misconduct Forms for completion. The original copy with relevant Exhibits shall be handed over to the Dean through the Head of Department for Further action while the duplicate and triplicate copies shall be retained by the Candidate and Examinations and Records Office, respectively. The Chief Invigilator shall submit the report immediately on the prescribed Examination Misconducts form to the Faculty Examinations Officer and the Dean. The Candidate concerned shall be allowed to continue with the examination provided that he causes no disturbance. The Dean shall cause the circumstances to be investigated and report to the Vice Chancellor (through the Provost of the College of Medical Sciences) for a final determination of the case.

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xxi The Panel to investigate the alleged misconduct shall be ad hoc, to give the Dean a free hand in selecting members who would be immediately available for the assignment in view of the urgency. The report of the Investigating Panel must reach the Vice Chancellor not later than two (2) weeks after the conclusion of the Semester Examination

The Vice Chancellor shall in turn inform the Faculty/School and College of his/her Decision. On the misconduct within two (2) weeks.

xxii All students involved in irregular assistance or cheating during examination shall write statement on the spot before being allowed to continue with the examination. Refusal of a student to write a statement on the spot shall be regarded as an examination misconduct.

b DUTIES OF ATTENDANTS:

Attendants shall be responsible for:

- i. Distribution of Examination Answer Booklets, Strings, and any other materials Specified.
- ii During the examination, attendants shall be present to supply supplementary Answer Booklets, Strings, Graph Sheets, etc. to candidates.
- iii Accompany Candidates to Toilet or to the First-Aid Room.
- iv Going for a member of the University Health Services when instructed by the invigilator.

c Instructions to Students

- i Only duly Matriculated/Registered Students are eligible to take examinations
- ii Candidates must attend punctually at the times assigned for their papers and they must be in the Examination Hall at least (30) minutes before the time that the examination is due to start. Candidates shall not be allowed to enter the Examination Hall until invited by the invigilator.
- iii A Candidate is required to deposit any Handbag, Briefcase, or any other prohibited material at the Chief invigilator's Desk (or a desk provided for that purpose) before the start of an examination.
- iv Candidates shall bring with them to the Examination Hall, their own ink, pens and pencils and

Any materials which are permitted by these regulations. Absolutely no book printed or

Written document or other communication gadgets or unauthorized aid shall be taken into

an Examination Room by any Candidate.

v A Candidate shall bring his Identity Card to each examination and display it in a prominent position on his desk.

vi A Candidate shall write his Examination Number, not his name distinctly at the top of the cover of every Answer Booklet and every separate sheet of Paper.

vii Each Candidate shall complete the Attendance Register in triplicate.

viii During the examination, a Candidate may leave the room temporarily, with the permission of the Invigilator only if accompanied by an Attendant. A Candidate who leaves the Examination Hall shall not be readmitted unless throughout the period of absence he has been continually under supervision of an invigilator or an Examination Attendance.

ix A Candidate shall not leave the Examination Hall until the first 30 minutes has elapsed and just be with the special permission of the Chief Invigilator. Such Candidate must drop his/her Question Paper and Answer Booklet before leaving

x A Candidate must not give assistance to any other Candidate or permit any other Candidate to copy from or use his papers. Similarly, a Candidate must not directly or indirectly accept assistance from any other Candidate or use any other Candidate's papers.

xi Any Candidate involved in irregular assistance or cheating during examination shall write a statement on the spot before being allowed to continue with examination.

Refusal of a Student to write a statement on the spot shall be regarded as an examination Misconduct and will be subject to the University disciplinary action.

xii Silence shall be observed in the Examination Hall. The only permissible way of attracting the attention of an Invigilator is by a Candidate raising his hand.

xiii Candidates are not allowed to smoke eat or drink in the Examination Hall.

xiv The use of Scrap Paper is not permitted. All rough work must be done in the Answer Booklets. Even, if they contain only rough work, they shall be tied inside the main booklet and crossed out neatly.

xv Candidates are advised in their own interest to write legibly and to avoid using faint ink. Answers must be written in English, excepts as otherwise instructed.

xvi On finishing each examination, Students should draw a line through any blank space or page of each Answer Sheet.

xvii Before handing in their Scripts at the end of the examination. Candidate must satisfy themselves that they have inserted the title of the examination, their Matriculation Numbers and the numbers of the question they answered, in the appropriate places.

xviii At the end of the time allotted, Candidates shall stop writing and stand up when instructed to do so remain standing and hand in their Scripts to the Invigilator before leaving the Examination Hall. Except for the Question Papers, and any materials that they Brought into the Hall with them, Candidates are not allowed to remove or mutilate any Paper or materials supplied by the University.

B, EXAMINATION MISCONDUCT AND PENALTIES

S/N	MISCONDUCT	SANCTION
1.	Proven cases of fore-knowledge of Examination Questions (Leakage)	Expulsion of all Involved.
2.	Coming into Examination Hall with Extraneous materials	Rustication for a Minimum period of 4 Semesters or expulsion if Fore-knowledge of Questions Is proven.
3.	Writing on any materials in the Examination Hall, Other than the Answer Booklet.	Letter of warning
4.	Non production of Identity Card or authorize Letter of Identification before and during examination.	To leave the Examination Hall Immediately.
5.	Any form of unauthorized Communication between and among Students During examination.	To loss 10 minutes of Examination time; if it Persists, relocate the Student further Persistence cancel the Paper.
6.	Impersonation at Examination	Expulsion of all Involved.
7.	Refusal to fill Examination Misconduct Form	Rustication for two (2) Semesters plus penalty for the original offence.
8.	Attempt to destroy or actually destroying Materials of proof of cheating	Rustication for two (2) Semesters plus penalty for the original offence.
9.	Refusal to obey Invigilator's instructions such as (i) Writing after the examination has been stopped. (ii) Non-compliance with the invigilator's sitting arrangements.	(i) Letter of warning (ii) To leave the Hall and carry over the course.
10.	Refusal to submit Answer Scripts (used and unused) at close of examination	Rustication for a minimum Period of two (2) Semesters.
11.	Smuggling of Question Papers and Answer Booklets Out of the Hall for help and returning with Answer Scripts	Expulsion.

12.	Failure to write Matriculation Numbers on Answer Booklet or to sign Attendance Sheet	Letter of warning
13.	Writing of Candidates / names on Answer Booklets	Letter of warning
14.	Leaving Examination Hall without Permission	To carry over the Course and letter of Warning
15.	Failure to draw a line through each blank Space at the end of each answer	Letter of warning
16.	Unruly behaviors in the Examination Hall Such as smoking, drinking of liquor , noise etc.	Verbal warning by Invigilator, if unruly behaviors Persists, to leave the Hall and carry over the course .
17.	Proven cases of physical assault on Invigilator/Attendant	Expulsion
18.	Failure to appear before misconduct Panel	Guilty as charged Indefinite suspension Pending appearance Before the Panel
19.	Any students with three (3) letters of Warnings	Rustication for a Minimum period of one (1) Session
20.	Any other cases of Examination Malpractice not specified.	Punishment as Appropriate.

COURSE CODE

100 LEVEL FIRST YEAR

FIRST SEMESTER

- BOT 111 Diversity of Plant (3 credits)
- CHM 111 General Chemistry 1 (3 credits)
- CHM 113 Organic Chemistry 1 (3 credits)
- PHY 111 Mechanics, Themal Physics & Props of Matter (3 credits)
- PHY 113 Vibrations, waves and optics (3 credits)
- PHY 109 Practical Physics (credits earned after 2nd semester)

AEB	111	Introductory Zoology (4 credits)
GST	111	Use of English 1
GST	112	Philosophy and logic (2 credits)

SECOND SEMESTER

BOT	122	Plant form and function (3 credits)
CHM	122	General Chemistry 11 (3 credits)
CHM	124	Organic Chemistry 11 (4credits)
PHY	109	Practical Physics (2 credits)
PHY	124	Electromagnetism and Modern Physics (4credits)
AEB	122	Functional Zoology (4 credits)
GST	121	Use of English 11 (2 credits)
GST	122	Nigerian People and culture
GST	123	History and Philosophy of science

200 LEVEL

FIRST SEMESTER

ANATOMY

ANTG 210	General anatomy and gross anatomy of the upper limbs (2 Credits)
ANT. 211	Gross anatomy of thorax (2 credits)
ANT, 212	Basic histology and cytology (2 credits)
ANT, 213	General embryology (2 credits)

BIOCHEMISTRY

BCH 217	Biochemistry 1 (6 credits)
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BCH 218 Practicals 1

PHYSIOLOGY

PHS 211 Introductory and general Physiology (2credits)

PHS 212 Blood and body fluid (2credits)

PHS 213 Cardiovascular system(2 credits)

PHS 214 Respiratory Physiology (2credits)

200 LEVEL

SECOND SEMESTER

ANATOMY

ANT 220 Gross anatomy of the abdomen, pelvis and perineum
(2 credos)

ANT 221 Gross anatomy of the lower limbs (2 credits)

ANT 222 Systemic histology 1 (3credits)

ANT 223 System embryology (3credits)

BIOCHEMISTRY

BCH 227 Biochemistry 11 (6credits)

BCH 228 Practical 11 for bch 227

PHYSIOLOGY

PHS 221 Renal Physiology (2 credits)

PHS 222 Gastrointestinal tract(3 credits)

PHS 223 Endocrinology and reproduction (2credits)

PHS 224 Temperature regulation (1 credit)

300 LEVEL

FIRST SEMESTER

ANATOMY

ANT	311	Gross anatomy of head and neck (3credits)
ANT	312	Systemic histology ii (3credits)
ANT	313	Systemic embryology (3credits)
ANT	314	Neuroanatomy (2 credits)

BIOCHEMISTRY

BCH	317	Biochemistry 111 (6credits)
BCG	328	Practical 111 for bch 317

PHYSIOLOGY

PHS	311	Renal, fluid and electrolyte balance (2credits)
PHS	312	Hypothalamo-hypophyseal system physiology (2credits)
PHS	313	Autonomic and neurophysiology (3credits)
PHS	314	Cardiovascular physiology 3credits)
PHS	423	Sensory physiology (2credits)

SECOND SEMESTER

DOS	321	Oral Anatomy Lectures & Tutorials	3
DOS	322	Oral Histology	3
DOS	323	Tooth Morphology & Comparative Dental Anatomy	3
DOS	325	Oral Physiology	4
DOS	324	Oral Embryology Lectures & Tutorials	3

400 LEVEL**FIRST SEMESTER**

COURSES		DESCRIPTION	
	CREDITS		
RES	410	Removable Partial Prosthodontics	3
RES.	411	Complete Prosthodontics	3
RES.	412	Science of Dental Materials	2
RES.	413	Junior Operative Techniques(Lecture/laboratory	5
RES.	414	Pain control in Restorative Dentistry	1
RES.	415	Introduction to Endodontics	1
RES.	416	Seminar Presentation	1
PCO.	413	General Pharmacology	5
PAT	410	General Pathology	1

			22

SECOND SEMESTER

PCO	423	General Pharmacology	8
PAT	420	General Pathology	<u>20</u>
			<u>28</u>
Total			<u>50</u>

500 LEVEL

FIRST SEMESTER

COURSES	DESCRIPTION	CREDITS PRE REQUISITE
DPE. 500	Introductory Periodontology	2
DPE 501	Advanced Parodontology	2
DOS 500	Oral Surgery	2
DOS 511		
DOS 510	Exodontia & Anaesthesia	2
MED. 500	General Medicine	10(2semesters)
SUG 500	General Surgery	10 (2 semesters)
ANA 510	Anesthesiology for Dental Students	2
RES 501	Clinical Endodontics	2
RES 502	Clinical Operative Dentistry	2
RES 503	Introduction to Occlusion	1
DR 502	Conservation clinics	3
PAE 501	Paediatrics	4
DOP 500	Oral Diagnosis Clinic	<u>2</u>
	Credits	<u>52</u>

SECOND SEMESTER

<u>COURSES</u>	<u>DESCRIPTION</u>	<u>CREDITS</u>
GSD 501	Application of computers to Dentistry	1
GSD 502	Research methodology	3

DCH 520	Introductory Orthodontics/Lab. Techniques (Lectures & Practical)	2
DCH 522	Paedodontics lectures & Clinical demonstrations	2
DPV 521	Epidemiological methods	1
DPV 500	Primary Dental Health Care	2
DOP 520	Oral Pathology & Oral Radiology, Lectures, Demonstrations, Practicals	5
	Credits	<u>21</u>
	TOTAL Credits	<u>73</u>

600 LEVEL

<u>COURSES</u>	<u>DESCRIPTION</u>	<u>CREDITS</u>	<u>REQUISITE</u>
DPV 610	Dental Ethics & Jurisprudence	1(1 st Semester)	DPV 101
RES 610	Occlusion	1	
RES 611	Clinical Removable Prosthodontics	1	
RES 612	Conservative Clinic	2	
RES 613	Clinical Fixed Prosthodontics & Implants	1	
RES 614	Special Prosthetic Appliances	1	
RES 615	Conservative Seminar	1	
DPV 601	Preventive Dentistry Seminar	2(2 nd Semester)	DPV 500
DCH 602	Orthodontics Clinic (1 st Session/Weeks)	1(2 nd Semesters)	

DPV. 600	Primary Dental Health Care	2(2 nd semesters)	
DPE 601	Periodontology Seminar	2 (2 nd Semester)	DRE 500,501
DOP. 611	Clinica Radiology Demonstration (block posting)	1	DOC 410
DOS 600	Oral Surgery	2(2 nd semester)	DOS 520
DOP 601	Oral Pathology	1 ^{(1st} semester)	
DOS 602	Oral Medicine & Dental Therapeutics Clinics (block posting)	2(2 nd Semester)	
RES 621	Advanced Clinical Endodontics	2	
RES 622	Prosthetic Clinic	2	
RES 623	Conservative Clinic	2	
RES 624	Advanced Operative Dentistry (Lectures & Laboratory)	2	
DOS 603	Oral Surgery Clinic	3	DOS 500
DOP 604	Oral Diagnosis Clinic	3	
DCH 600	Paedodontics Clinic	3	DPV 502
DPE 600	Period ontology Clinic	3	DPE 500
DPV 601	Health Education	2	
DPE 602	Health Management & Evaluation	2	
	Total Credits	43	

TOTAL CREDITS (100-600 Level) -

359 credits

“Level 600 courses lasting 2 semesters are practical/clinical courses

MODIFICATIONS OF THE B.D.S COURSE

Course: Synopsis of the B.D.S Course

100 level	Physics, Chemistry, AEB. Botany & General studies
200 level	First & Second Semesters; ANT, PHS, BCH
300 level	First Semester BDS 1A PHS, ANT, BCH Second Semester, BDS 1B, ORAL BIOLOGY (Oral Anatomy, Oral Physiology)
400 Level	First Semester; Operative Technique, Prosthetic Technique 11A Pathology & Pharmacology 11B Second Semester: Pathology & Pharmacology 11B (Continues) Long vacation clinical Postings
500 Level	Medicine/Surgery, Dental Subjects Part 111 Long vacation: Clinical postings
600 Level	Dental subjects: Oral Surgery/ Pathology Restorative dentistry, Periodontics, Preventive Dentistry.

To qualify for the BDS degree of the University of Benin, a candidate must obtain a total of 359 credits at the end of the programme.

COURSE OUTLINE

100 LEVEL

FIRST SEMESTER

BOT 111; DIVERSITY OF PLANT (3 Credits) First Semester

Diversity of living Organisms and habits, life form, mode of nutrition, size, Shaped etc, common features of organisms. Need of arranging them into

Classifications. Concepts of five kingdoms and their characteristics and Possible evolutionary relationship among major groups organism. A brief Survey of bacteria, virus, PPLO. Life cycle of Algae, Bryophytes Pteridophytes, Gymnosperms and Angiosperms (2 Lectures, 1 Practical/week).

CHM 111; GENERAL CHEMISTRY 1 (3 Credits) First Semester)

- a Relationship of chemistry to other sciences, Atoms, subatomic particles isotopes, molecules, Avogadro's number, Mole concept Dalton's theory. Modern concepts of atomic theory laws of chemical combination. Relative atom masses.
- b. Introduction to nuclear reactions. Nuclear binding energy, fission and fusion reactions.
- c. States of matter: Gases, gas laws, General gas equation liquids and solid Introduction to lattice structures, isomorphism, Giant molecules.
- d Introduction to the Periodic Table, Hydrogen and hydrides, Chemistry of Groups O,1,11, elements. Acid-Base properties of oxides.

CHM 113 – ORGANIC CHEMISTRY 1 (3 CREDITS) 1ST SEMESTER

- A.** General Principles of Organic Chemistry.
 - I Introduction: Definition of Organic Chemistry Classification of organic Compounds. Homologous series. Functional groups.
 - li General procedure for isolation and purification of organic compounds.
 - lii Determination of structure of organic compounds. Elemental analysis Percentage composition. Empirical and molecular formula, structural formula.
 - lv **Isomerism.** Structural isomerism and stereo isomerism.

- v **Electronic theory** in organic chemistry. Atomic models, quantum numbers.
Atomic orbital. Hybridization leading to formation of carbon, carbon single,
Double and triple bonds. Hydrogen bonding, electronegativity, dipole moment
Polarization. Bond energy inductive and resonance effects.

- B Non-polar functional Group Chemistry
 - i Alkanes; Structure and physical properties, Substitution actions including mechanism.
 - ii Alkenes: Structure and physical properties. Reaction addition (Of H_2 , X_2 HX H_2O O_3 etc); oxidation polymerization. Stereoisomerism - Definition, geometrical and optical isomers. Conditions for optical isomerism.
 - lii Alkynes: Structure, Acidity of acetylenic hydrogen, Reaction addition of H_2 X_2 , H_2O . etc. Test for alkynes.

- lv Benzene: Structure and aromaticity of Benzene Introduction to Electrophilic substitution reactions.

- C
 - I Nomenclature; Common (trivial) names, IUPAC names of classes of compounds.
 - ii Introduction to petrochemistry: Origin of petroleum, importance, fractional distillation of crude oil components properties and uses, Octane number, cracking.
 - iii Coal tar chemistry: origin, production, important components and uses.

A Mechanics:

Scalars and Vectors; Addition and resolution of vectors Rectilinear

Motion and Newton's law of motion Inertial mass and gravitational mass

Free fall; projectile motion, deflecting forces and circular motion Newton's

Law of gravitation, satellites, escape velocity. Gravitational potential;

Potential well; special case of circular motion Momentum and the

Conservation of a momentum. Work Power energy, units, Potential energy

For a gravitational field and elastic bodies, kinetic energy conservation of

Energy, energy stored in a rotating body. Kinetic energy in elastic and inelastic

Collisions.

B Thermal Physics And Properties of Matters:

Temperature, heat, work, heat capacities; second law, can not cycle;

Thermodynamic ideal gas temperature scale Thermal conductivity; radiation;

Black body and energy spectrum, Stefan's law. Kinetic model of a gas; Equation of state, concept of diffusion mean free path, molecular speeds, Avagadro's number behavior

Of real gases.

A model for a solid; inter-particles forces in solids, liquids and gases;

Physical properties of solids, Crystalline structure, Close packing orderly

Arrangements, elastic deformation of an ordered structure, interference

Patterns and crystals.

Model for matter, surface energy and surface tension, plastic deformation;

Thermal and electrical properties of metals.

Pre-requisite: GCE O-Level or WASC

PHY 113 – VIBRATIONS, WAVES AND OPTICS (3 CREDITS)

PERIODIC MOTION

Periodic motion of an oscillator Velocity and acceleration of a sinusoidal,
Oscillation, equation of motion of a simple harmonic oscillator damped
Oscillations forced oscillations, resonance; propagation of longitudinal
And transverse vibrations.

Wave behaviors; Reflection of waves, stationary waves, propagation of
Straight and circular pulses fiber optics, diffraction, refraction dispersion
Interference, coherence, polarization

Wave and light Mirrors, lenses, formation of images, lenses in contact
Microscope, telescope; chromatic and spherical aberrations and their reduction.
Dispersion by prisms; relation between colour and wavelength spectra.

ZOO 111 – INTRODUCTORY ZOOLOGY (4 CREDITS) First

Semester

Man population growth and impact on the biosphere, Faunal biodiversity,

Invertebrata:

Cephalochordata, Pisces, Amphibia, Reptilia, Aves, Mammalian

Mammalian Anatomy: Anatomy of Rattus rattus

SECOND SEMESTER

BOT 122 – PLANT FORM AND FUNCTION (3 CREDITS) Second

Semester

The general morphology anatomy, history and physiology of flowering
Plants, seed structure, dispersal and germination, development of primary
And secondary plant body water relations, photosynthesis, translocation
And storage organs, respiration.

(2 Lectures, 1 practical/week).

CHM 122; GENERAL CHEMISTRY 11 (3 CREDITS) 2ND SEMESTER

Acid, Bases and Salts.

Quantitative and qualitative analysis, Theory of volumetric analysis – Operations and methods, Calculations, Mole, Molarity Molality Behavior Of electrolytes. Water Colligative properties. Ostwald's dilution law Arrhenius Bronsted-lowry, lewis concepts and applications, Buffers Introduction to reaction rates. Equilibria and equilibrium constants. Solubility products. Common effects precipitation reactions. Chemistry Of Redox reactions.

CHM 124 – ORGANIC CHEMISTRY II (3 CREDITS) 2ND SEMESTER

A Polar Function Group Chemistry

1. **Hydroxy group** – Alcohols and phenols, Classification Acidity – Comparison Important methods of preparation, Reaction; with Metals bases. Alkyl halide, Oxidation, dehydration, Tests for alcohols And phenols, Importance.

- ii **Carbonyl group** Aldehydes and ketone structure physical properties important methods of preparation, Reaction: Tollen's reagent, Fehling's alcohols, including mechanisms, with ammonia hydrazines and the derivatives. Including mechanisms, aldol condensation. Tests for aldehydes and ketone, Importance.

- iii **Carboxylic group:** Monocarboxylic acids Structure Physical Properties, Acidity and resonance. Importance methods of Preparation, from alcohols aromatics hydrocarbons through Grignards

Reagent. Reaction with bases Conversion to esters amides,
Halide and anhydrides. Tests for carboxylic acid Importance.

- iv **Carboxylic acid derivatives** – Anhydrides, acid halides, esters and amides. Change of reactivity when – OH of acid is replaced by –OCOR – X, –OR, –NR₂, reactions with water alcohols, ammonia And amines, LAIH₄ Text for esters.
- v **Amino group** – Amines Structure, physical properties important methods of preparation Reaction with acids bases. Basicity and salt formation: Alkylation acylation, with nitrous acids, Hinsberg methods of separation. Text for amines importance.

B **Miscellaneous Topics**

- i. **Fats and Oils** – Definition, importance, saponification, Soaps and detergents, mode of cleaning action, Use in paints and varnishes
- ii **Amino acids, proteins** - Definition, classification essential amino acids, special properties and reaction, isoelectric points, Pests. Importance.
- iii **Carbohydrates** - Definition, classification importance nomenclature, structure and reactions of glucose, Mutarotation Tests.
- iv **Natural Products - Main classes (other than liquids, carbohydrates**

And proteins) Steroids terpenoids, alkaloids, prostaglandins
Definition, Importance, examples.

PHY 109 – PRACTICAL PHYSICS (2 CREDITS)

Students are expected to carry out a minimum of 12 major experiments

Covering the main aspects of the courses taken in the year.

Pre-requisite: GCE O-level or WASC.

PHY 124 – ELECTROMAGNETISM AND MODERN PHYSICS (4 CREDITS)

Electromagnetism (3 credits)

Electric field: Strength, Flux and the inverse square law; electrostatic Force between two charged particles; flux model for the electric field Energy stored in an electric field, electrical potential due to dipole.

Steady direct current: Simple circuits; potential difference; resistance, power, electromotive force, Kirchhoffs laws; potential divider, slide wire potentiometer, bridge circuits, combining resistances.

Capacitors: Capacitance, combination of dielectrics, energy store, Charging/discharging, Electromagnetic effects; Electromagnetic forces, Electric motors, moving coil galvanometer, ammeter, voltmeter, Electromagnetic induction, dynamo.

Alternating currents; Simple A. C. circuits, transformers, motors and Alternating currents.

Magnetic field; The field at the centre of a current-carrying flat coil of a Current carrying solenoid, outside a long solenoid, flux model and Magnetic fields.

Electromagnetic induction: Induction in magnetic field magnitude and Direction of induced e.m.f. energy stored in a magnetic field self-Inductance.

Electricity and matter: current flow in an electrolyte, Millikan experiment Conduction of electricity at low pressure, cathode rays photoelectricity.

Modern Physics (1 credit)

Structure of atom; Atomic theory, S-rays, Planck's quantum theory, Wave Particle nature of matter scattering experiment of Geiger and Matshen Rutherford atom model, Bohr's atom model.

Structure of nucleus; Composition of nucleus, artificial transmutation of an Element, natural transmutation of an element, discovery of neutron Particle, emission, isotopes and particles emission, gamma radiation.

Pre-requisite; GCE O – Level or WASC.

AEB 122 - FUNCTIONAL ZOOLOGY (4 CREDITS, SECOND SEMESTER)

Embryology: Genetogenesis, fertilization and cleavage as demonstrated By Amphioxus, Genetics; and distribution of genetic material Mitosis, meiosis, inheritance, sex determination and sex-linked Inheritance.

Histology: Cells, tissues, organ formation and main features,

Physiology: Functioning of mammalian skin, muscles/skeleton, alimentary System/nutritional requirements and deficiencies.

200 LEVEL

FIRST SEMESTER

ANT 210 - GENERAL ANATOMY AND GROSS ANATOMY OF THE UPPER LIMBS (3 CREDITS)

The general descriptive terms as used in the study of the human body would be introduced. The techniques used to study the human body would be technique used to study the human body The general descriptive Terms as used in the study of the human body would be introduced. The Techniques used to study the human body would also be introduced. The gross anatomy of the upper limbs: Pectoral region, Axilla, Brachial Plexus, scapular region, brachium Antebrachial fossa and its Anastomosis, carpal tunnel, Hand, Nerve injuries osteology and joint of The upper limb, the vascular anastomosis and lymphatic drainage of the Breast and upper limb would be studied.

ANG 211 - GROSS ANATOMY OF THORAX (3 CREDITS)

Description; for the thorax: The sternum ribs, thoracic vertebrae, Heart and great vessels, thoracic duct, dissection of spaces; Mediastinum, Lungs bronchopulmonary tree and segments thoracic diaphragm. Aorta And respiratory movement.

ANT 212 - BASIC HISTOLOGY AND CYTOLOGY (3Credits)

Description. Structure and the function of the cell, general histology and Basic tissues of the body. Preparation of tissues for microscopy, is a Practical oriented course that is studied along side with the theoretically Based lecture.

ANT 213 - GENERAL EMBRYOLOGY (2Credits)

General consideration of the male and female Reproductive organs. Gametogenesis fertilization implantation cleavage the morula the Blastocyst formation of the primitive streak, the Bilaminar and trilaminar Germ disc Development of tissues and organ systems of the embryo, the Chorionic and amniotic cavities, foetal membranes, placental formation And functions. The molecular regulation in differentiation of tissues and Organs and in the establishment and patterning of the body axis. Birth Defects, chromosomal and genetic factors . Twins and twin defects General characteristics of the embryonic and foetal periods.

BCH 217 - BIOCHEMISTRY 1 (6 Credits)

Importance of Biochemistry to medicine – levels of medical care and Biochemistry. Membrane and cell structure Techniques used in biochemistry and medicine.

Protein structure and function - primary, secondary and tertiary Structure of proteins.

Protein as informational molecules, proteins in blood digestion and Absorption and transport of amino acids in the GIT. 3-dimensional Structure of proteins, molecular basis of protein structure - structural Proteins, etc abnormal haemoglobins.

Enzymes: Protein nature of enzymes, location and function of enzymes, Factors affecting enzyme action, cofactors, coenzymes etc. Activation of Zymogens, blood clotting and enzymes. Enzymes in medicine

Metabolism - introduction to the study of intermediary metabolism.

Interrelations in metabolism

Bioenergetics and the driving force in cellular reactions.

Carbohydrate chemistry, digestion, absorption and metabolism.

BCH 218 - PRACTICALS I FOR BCH 20

PHS 211 - INTRODUCTORY AND GENERAL PHYSIOLOGY (2 CREDITS)

Cell physiology, Physiochemical principles, Body fluids and Blood Transport Control systems. Introduction to ANS Excitable and Contractile Cells.

PHS 212 - BLOOD AND BODY FLUID (2 Credits)

Introduction and definition of body fluids and body fluid compartments.

Regulation of body fluid volumes Physiological variation of body fluid

Volumes. Techniques for quantifying various body fluid volumes.

Blood – Functions of blood and classifications of blood cells

Erythropoiesis Heamatoiological indices. Heamogiobin genotype and Blood

Groups immunology and cell defence.

BHS 213 – CARBIOVASCULAR SYSTEM)2 Credits)

Definition and functions of the cardiovascular system cardiac muscle
Cardiac myoelectrophysiology, cardiac cycle, circulation of blood, cardiac
Output and regulation. Blood pressure Haemodynamics and
Microcirculation, Pulmonary, Cerebral, Coronary, Splanchnic and muscle
Circulation, Shock and cardiovascular changes in exercise.

PHS 214 - RESPIRATORY PHYSIOLOGY (2 Credits)

Definition and function of the respiratory system. Physiologic anatomy of
The respiratory system, Respiratory dynamic and work pulmonary
Ventilation lung volumes and capacities, spirometry. Mechanism and
Mechanics of breathing. Lung surfactant, pulmonary circulation. Gas
Exchange and gas transport Oxygen hemoglobin dissociation curve.
Hypo; a and Dyspnoea Respiratory changes in exercise and barometric.
Changes Control of breathing.

SECOND SEMESTER

ANT 220 - GROSS ANATOMY OF THE ABDOMEN, PELVIS AND PERINEUM (2 Credits)

Abdomen: subdivision of the abdominal region and their applied anatomy
Anterior Abdominal wall, stomach, spleen, liver, gall bladder, pancreas,
Small and large intestine, celiac trunk, biliary apparatus, intra and supra
Colic compartment and recesses, appendix renal and suprarenal gland,
Dissection of the entire abdominal region for proper understanding of the
Entire region.
Pelvis and perineum, pelvic cavity wall and diaphragm pelvic visceral like
The urinary bladder, uterus, testes, ovary, etc.)Perineum, boundaries and

Subdivisions. Perineal pouches, external and internal genitalia.

Ischioanal fossa. General dissection of the pelvis and perineum region.

ANT 221 GROSS ANATOMY OF THE LOWER LIMBS (2 Credits)

The lower limb lumbar and lumbosacral plexus, femoral triangle, thigh, Gluteal region, leg foot, nerves injury and their applied anatomy of lower limb popliteal fossa, Genual and ankle joints. Arch of the foot Osteology and joins of the lower limb. Vascular Anastomosis and lymphatic drainage of the lower limb.

The theoretical aspect to go along side with the dissection of these regions In cadaver.

ANT 222 - SYSTEMIC HISTOLOGY 1 (Credits)

Systemic histology of CVS. GIT, Musculo skeletal.

ANT 223 - SYSTEM EMBROLOGY (3 Credits)

The diaphragm, the cardiovascular, respiratory and gastrointestines Systems Development of the adrenal plan, the liver, the parncreas and the spleen. The urogenital, musculoskeletal and integumentary system The limbs the molecular regulation and associated developmental Anomalies of the systems.

BCH 227 - BICHEMISTRY II (6 credits)

Lipid chemistry, digestion, absorption, and metabolism including Phospholipids, prostaglandins, lipidoses. Ekosanoids, fatty liverobesity. Kelosis Mombranes.

Metabolism of amino acids amino acid degradation and biosynthesis.

Essential and non-essential amino acids. Ketogenic and glucogenic

Amino acids.

Regulation of amino acid metabolism.

Introductory Molecular Biology – Nucleic acids – DNA, RNAs and

Elementary treatment of their structure, Biochemistry of heredity.

Discovery and properties of the genetic materials DNA replication and cell

Division. The mechanism of DNA replication in prokaryotes and

Eukaryotes, DNA recombination and repair. The implication of these

processes in medicine.

Coding properties of DNA – RNA Mutagens and Mutation. DNA

Transcription and the different RNA products of transcription.

Mechanism of protein synthesis, control and regulation of protein

synthesis. Biosynthesis.

(a) Nucleic acids (b) Carbohydrates (c) Lipids (d) Porphyrins, Nutritional

biochemistry including vitamins and mineral metabolism.

Biochemical basis of inherited disease, management. Tissue and organ

biochemistry, e.g. blood as a tissue, etc.

BCH 228 - PRACTICALS II for BHC 227

PHS 221 – RENAL PHYSIOLOGY (2 credits)

Definition and functions of the kidney. Physiologic anatomy of the kidney

Glomerular filtration. Tubular functions. Urine formation:-

Dilute and concentrated Urine, Counter current mechanism, plasma

Clearance, renal autoregulation, ECF regulation. Acid Base balance.

Renin-Angiotensin system.

PHS 222 – GASTROINTESTINAL TRACT 3 Credits)

Definition and functions, physiologic anatomy and innervations of the GIT

Mastication, Deglutition, Salivary gland, Digestion and food absorption,

Movement and Stomach emptying, Movements of the GIT; Vomiting and

Defecation, GIT secretions and juices, liver and General metabolism

(BMR).

PHS 223 – ENDOCRINOLOGY AND REPRODUCTION (2 CREDITS)

Definition and functions. Definition of Hormones, Methods of

Measurement, Types and mechanism of Actions, Regulation, Physiologic

Anatomy. Hypothalamus-Hypothalamic releasing factors, Hypothalamic

Nuclei, Hypothalamo-hypophyseal system, pituitary gland. Tropic

Hormones, , GIT and other local hormones. Structure and functions of male

And female reproductive organs, Androgens, Spermatogenesis and fertility

Infertility in male. Oogenesis, Sexual cycle and hormonal regulations.

Fertilization. Pregnancy and parturition, Fertility and infertility in female.

Family planning.

PHS 223 - TEMPERATURE REGULATION (1 CREDIT)

Body temperature and the environment. Mechanisms of heat Exchange.

Peripheral thermo receptors. Central thermoreceptors. Hyperthermia. And

Hypothermia, Fever, heat Exhaustion and Heat stroke.

300 LEVER

FIRST SEMESTER

ANT 311 – GROSS ANATOMY OF HEAD AND NECK (3CREDITS)

Skull, scalp and the face. Side of the Neck cervical fascia, posterior and Anterior triangle of the neck, back of the Neck, cranial cavities, temporal And infratemporal regions, parotid region submandibular region, deep Structures of the neck, thyroid and parathyroid glands, oral cavity, pharynx And larynx nasal cavity, Ear and orbit (eye)

ANT 312 - SYSTEMIC HISTOLOGY II (3 Credits)

Microscopic anatomy of the brain and spinal cord. Microscopic study of The lungs, trachea bronchus and alveoli. Process mechanism and Transport of respiratory gases. Tissue respiration respiratory control.

ANT 313 - SYSTEMIC EMBRYOLOGY (3 Credits)

The pharyngeal or brachial apparatus, its derivatives including the thymus. Parathyroid glands and the tongue. Development of the face, the palate, The sinuses, the thyroid, pituitary and pineal glands. The teeth, Development of the central and peripheral nervous systems. The molecular Regulation and associated developmental anomalies of the Organs and systems.

ANT 314 - NEUROANATOMY (2Credits)

Coverings of the brain and spinal cord, Forebrain, midbrain and hindbrain, Ventricular systems. Production and flow of cerebrospinal fluid (CSF) Ascending and descending tracts in the brain and spinal cord, External And internal structures of brain and spinal cord, structures and pathways in the brainstem and spinal cord

BCH 317 – BIOCHEMISTRY III (6 Credits)

Biochemistry of hormones and hormonal actions to include actions of C

AMP. Adrenaline, glucagons, insulin, diabetes

Chemistry of the immune system.

Hem degradation, bile pigments, liver conjugation Biochemistry

transformation of foreign substances, detoxification mechanisms.

Erythrocyte metabolism, Excitable Membranes.

Muscle and mechanism of muscle contraction, biochemistry of muscular dystrophy

Special aspects of cardiac muscle metabolism.

Biochemistry of vision, vitamin, Biochemistry of environmental hazards,

Cancer biochemistry, bacterial biochemistry.

BCH 328 - PRACTICALS III for BCH 317

PHS 311 – RENAL, FLUID AND ELECTROLYTE BALANCE (2 Credits)

Functions of the kidney, Morphology of tubule and Tubular functions.

Renal function tests Mechanism of renal Excretion of different electrolytes

(H⁺, Na⁺, K⁺ and Cl⁻) and ECF Balance.

PHS 312 - HYPOTHALAMO-HYPOPHYSEAL SYSTEM PHYSIOLOGY

(2 Credits)

Physiologic morphology of the pituitary gland and the hypothalamus.

Blood supply to the hypothalamus and the pituitary Neural Hypophyseal

Tract. Hypothalamo-hypophyseal system.

PHS 313 - AUTONOMIC AND NEUROPHYSIOLOGY (3Credits)

Physiologic anatomy of the ANS. Functions of the ANS. Difference and Similarities between ANS and somatic nervous system. Divisions of the ANS. Characteristics of the Sympathetic and the Parasympathetic system. Similarities and differences. ANS effects on major organs of the body. Pharmacology of the ANS, ANS reflexes and Control centers.

PHS 314 – CARDIOVASCULAR PHYSIOLOGY (3Credits)

Cardiac my electrophysiology, cardiac cycle, Circulation of blood cardiac Output and regulation. Blood pressure, Haemodynamics and Microcirculation. Pulmonary, Cardiovascular changes in exercise Cardiorespiratory of the newborn Regulation of intracellular calcium Concentration cardiac integration and autonomic control of the heart Excitation contraction coupling in vascular smooth muscle, Vascular and Autonomic receptors, Pulmonary circulation and architecture of the pulmonary vasculature; Structural and functional adaptation; Individual circulations; Cardiovascular actions of histamine, the Renin/angiotensin system and vasodilators drugs; nitrovasodilators, atrial natriuretic peptides.

PHS 423 – SENSORY PHYSIOLOGY (2CREDITS)

Receptor – characteristics, cutaneous sensations, Taste and Smell; Vestibular apparatus and Equilibrium; Neural auditory pathways, Hearing Impairments; Vision, Refractive Errors and correction; The Retina, Neural Processing of visual information.

300 LEVEL SECOND SEMESTER

ORAL BIOLOGY (16 Credits)

ORAL ANATOMY (TOTAL = 12 CREDITS)

Development of the human face, oral cavity, jaws tongue and salivary

Glands;

Deciduous and permanent incisors, canines, premolars and molars;

Development of brachial arches and their derivatives;

Mandibular and hyoid arches and relationship of V¹, V¹¹th and 1Xth cranial

Nerves;

Growth of the face and jaws and development of nerve supply to the teeth,

Formation of dental lamina and differentiation;

Early development of tooth germ.

Development of enamel organ and differentiation into tooth structures,

Formation of deciduous and permanent teeth;

Origin of tongue, buccal sulcus, thyroid, hyoid and salivary glands;

Amelogenesis,

Development of dental pulp;

Formation of periodontal membrane, dental follicle, Hertwig's sheath;

Detailed structure of formed dental tissues including cellular elements;

Physical and chemical properties, histo-chemical properties, calcifications,

Enamel, periodontal membrane, alveolar bone;

Mucous membrane Variations of epithelium in different parts of the mouth

And adjacent structures including tongue, antrum epiglottis, mucous

Glands, Fordyce's anomaly;

Gingiva, free and attached gingival, relationship to teeth and periodontal

Membrane, interdental papillae;

Eruption of teeth, Different theories, Remnants of enamel epithelium

Eruption cysts,

Mixed dentition;

Radiographic appearance at different ages;

Movement of teeth before and after eruption Normal limits, mesial drift,

Over eruption, tilting. Changes in bone and cementum;

Exfoliation of deciduous teeth;

Development of normal occlusion;

The tongue Development, innervation, muscles, epithelium taste buds,

Blood supply, lymphatic drainage;

Temporomandibular joint, development, structure age changes,

Movements;

Growth of the jaws and changes throughout life;

Maxillary antrum and relationship to teeth and nerves

Paranasal sinuses, lip;

The salivary glands and ducts; Relationship of facial nerves;

Applied surgical anatomy of fascial layers of oral cavity, cervical fascial,

Lymphatic drainage, facial nerve, sphenopalatine ganglion.

ORAL PHYSIOLOGY (TOTAL 4 CREDITS)

Calcium and phosphate metabolism, Absorption, Body requirement, role of Citrate, blood levels, parathormone, thyroxin calcitonin excretion;

Chemical composition of enamel, dentine, cementum, bone inorganic and Organic, crystalline structure, hydroxyapatite, fluoride uptake, collagen,

Ascorbic acid, amino acids;

Theories of calcification, Phosphate theory, seeding theory;

Changes in calcification Permeability of dental hard tissues, age changes;
Resorption, exfoliation, changes in bone and cementum;
Hormonal influences on growth and development of teeth and jaws;
Nutrition and diet, calcium phosphate ratio. Effects of variations on caries,
Role of sugars in dental caries.

Fluoride – influences on enamel, mottling fluorosis Relation to dental
Caries prevention,
Theories of mechanism,
Trace elements, Molybdenum, selenium Molybdenum, selenium, magnesium,
Vitamins – A, B, C, D,
Saliva – organic and inorganic constituents Factors controlling and
Affecting secretions,
Nervous control of flow Xerostomia, functions of saliva,
Calculus composition, formation Relation to dental disease
Dental caries – introduction to aetiology and pathology and current
Concepts,
Physiology of taste and smell;
Innervation of dentine,
Role of teeth and oral structures in speech;
Mastication and deglutition;
Physiology of pain and pain perception;
Introduction to muscle spindles and their functions,

PRE-REQUISITES

All courses at this level must be successfully completed before advancing to the next level, since courses at this level are pre-requisites to those at the next level.

400 LEVEL

FIRST SEMESTER

The subjects for this level (part ii) shall be

Operative Techniques and prosthetics Technique which constitute part **IIA**

and Pathology and Pharmacology as Part IIB

pathology consist of the following:-

- a) Pathology (Morbid Anatomy and Histopathology)
- b) Microbiology and Immunology
- c) Haematology
- d) Chemical Pathology.

COURSE CODE & TITLE

CREDITS; 3

RES. 410 - REMOVABLE PARTIAL PROSTHODONTICS

(LECTURE & LABORATORY)

Applied anatomy of oral and facial tissues in relation to prosthodontics;

Cosae, bony ridges, muscles, tongue, lips and pemporo-madibular joint;

Examination of patient, history-taking. Special investigations, Various

Impression techniques.

Bite registration, Occlusal records. Articulators, Surveyors – Uses and

Limitations.

Immediate Dentures,

Repair, reline of partial dentures

Introduction to precision attachments and clasps;
Classification of edentulous jaws;
Consequences of tooth loss.
Choice of removable partial denture among other treatment options.

RES. 411 – FULL DENTURE PROSDTHODONTICS

LECTURES AND PRACTICALS CREDITS; 3

Challenges of complete loss of dentition;
Teeth for dentures – types and selection criteria.
Arrangement of teeth, Design of complete dentures.
Processing of complete dentures (clinical and laboratory),
Pathological changes in oral tissues caused by dentures.
Special (custom) trays fabrication
Reline, Repair, Re-basing and copying of complete dentures.

RES. 412 – SCIENCE OF DENTAL MATERIALS

LECTURES/PRACTICALS CREDITS; 3

Introduction to materials used in Dentistry
Mechanical, physical, chemical and biological properties, bonding cross-linking
Polymers, adhesion interface reactions.
Alloys, Ceramics Glasses plastics impression materials, Plaster of Paris.
Impression composition, waxes,
Hydrocolloids; Agar, Alginates; Elastomer: Polysulphides, polyethers.
Silicones
Applications in Conservative and prosthetic Dentistry
Model and Die materials

Peripheral seal materials, Gutta Percha Fissure sealants,
Dental cements, Zinc Oxide-Eugenol and similar cement, Zinc phosphate
Cement, Zinc

Polycarboxylate cement EBA (Ethoxy Benzoic Acid Cement), calcium
Hydroxide, GIC

(Glass Ionomer cement) MTA (Mineral Trioxide Aggregate) Polymeric
Denture base materials. Alternatives to acrylic.

Direct and indirect tooth filling materials.

Amalgams composites (direct and indirect), Compomers. Dental gold-
Types.

Manipulation and Applications,

Dental Ceramics, Types, manipulation and applications of Dental
Porcelain.

Partial denture casting alloys, Alloys for inlays, Crown and Bridges

Soft lining, Tissue Conditioners and Resilient linings Functional
Impressions,

Base plates, vacuum-formed trays and mouth guards.

- heat and light cured.

RES 413 – JUNIOR OPERATIVE₃ TECHNIQUE

(LECTURES & LABORATORY) CSREDITS; 5

Dental Charts to record caries and periodontal disease phantom

Head/dental simulator use and maintenance,

Introduction to phantom head equipment Air rotors, water and air sprays

Assorted hand instructions. Black's classification of cavities and

Descriptive Terminology, patent's records and universal symbols.

Safety, and protection of patients, dentists and support staff and Equipment.

Principles of cavity preparations for amalgam and gold restorations

Cooling during Tooth preparation.

Use of slow and high speed cutting instruments and burs Effect of cavity

Preparation of the dental pulp. Preparation, lining and filling of cavities

Handing, manipulating and finishing amalgam filling. Use of pins to aid

Filling.

Retention coloured restorations restorations in anterior teeth using especially

Compositus, compomers and glass-ionomercements. Modification of tooth

Restorations in deciduous teeth

Disking of deciduous teeth, Use of "stainless steel" crowns.

Use of dressings, temporary filling, temporary crowns and saliva/moisture

Control in operative dentistry. Use of rubber dam, saliva ejector and high

Volume Aspiration/suction.

Introduction to jacket crown preparations and elastomeric impressions

Copper band impressions. Acid etching techniques, Importance of good

Oral hygiene

Direct and indirect was impressions for inlays.

Casting of inlays using "student alloy"

RES 414 - PAIN CONTROL IN RESPORATIVE DENTISTRY

(LECTURES) CREDITS; 1

Functional anatomy of maxillary and mandibular innervation of teeth and

Surrounding structures.

Pre-medication – when, why and how. Agents for pre-medication

Topical, infiltration, nerve blocks, intra-ligamentary, intra-osseus.

Local anaesthesia in conservative dentistry. Material techniques

Sedation – inhalational and intravenous.

General anaesthesia

Adverse reactions and management. Needle stick injuries to patient,

Dentist and support staff.

PRES. 415 – INTRODUCTION TO ENDODONTICS

CREDITS; 1

Anatomy of the Root Canal System – Deciduous and permanent teeth.

Differences between deciduous and permanent dentition in relation to

Conservation and pulp treatment.

Reasons for pulp disease. Reaction of the pulp to injury and disease.

Sequelae of pulp injury. Management of the diseased or traumatized

Dental pulp. Pulp Capping procedures – direct and indirect. Other pulp

Treatment procedures-

Pulpotomies and pulpectomies, pulp vitality tests.

Elementary root canal treatment in single-rooted teeth.

PRES 416 – SEMINAR PRESENTATION

CREDIT; 1

Two seminars per student, presented on assigned topics and submitted.

Bound after presentation are mandatory.

MORBID ANATOMY, HISTOLOGY AND FORENSIC MEDICINE

General Pathology PAT 410

Introduction – ancient, traditional and modern concepts of diseases and Their causes. The Normal cell and cellular basis of diseases. Tissues and Cellular injury reaction to cellular injury-inflammation, Healing and Repair. Disturbance of cell growth cellular, Adeptation and Neoplasia Cytogenetics And Genetic Disorders. Pigmentary Disturbances. Calcification and Amyloidosis Disorders of Nutrition.

SYSTEMIC PATHOLOGY PAT 420

A Ckardiovascular Syustem

Hypertensive heart disease and headrt failure Cadrdiomyopathies-
Congestive restrictive (**EMF**)

B Respiratory.

Tuberculosis.

C Renal.

Nephropathy associated with malaria and other infestations and
Infections.

LYMPHO-RETICULAR – Malignant. Lymphomas (non-Hodgkins and Hodgkins Lymhoma: Burkitt) Idiopathic Tropical Splenomegaly Syndrome (ITS).

Cancers of the mouth, oesophagus and stomach

LIVER Hepatitudes – Hepatitis Virus, yellow fever, lassa fever., cirrhosis
Primary level cell carcinoma.

NERVOUS SYSTEM. Infections-Meningitis, trypanosomiasis

FEMALE REPRODUCTIVE TRACT –Pelvic inflammatory disease Cancer

- Cervical, trophoblastic, ovarian.

OPHTHALMIC Inflammatory disease – Phytogenic, trachoma,
Onchocerciasis.

NUTRITIONAL. Protein-Calorie malnutrition

SKIN **Inflammatory – leprosy**
Tumours – Kaposi Sarcoma

BONES Tumours of the jaw.

MICROBIOLOGY – MMB

The course in Medical Microbiology consists of six parts, Bacteriology,
Virology, Medical Protozoology Medical Mycology, Medical
Helminthology and Medical Entomology.

Course Content.

BACTERIOLOGY

Infections diseases, past and present Nature and classification of bacteria
Of medical importance. Mechanisms of pathogenicity and producing
Bacteria. The process of bacterial destruction (sterilization and disinfection),
The normal flora of the human body description of the
Following organisms.

Salmonella typhi, shigella spp, Mycobacterium spp. Brucella spp,
Corynebacterium spp., Clostridium spp., Bacteroides spp., Haemophilus
And Bordetella spp., Spirochaetes, Listeria, Yersinia spp., Vibrios,
Campylobacterium spp., Enterobacteriaceae Acinetobacterium spp.,

Pseudomonas spp., Actinomyces and Nocardia, Chlamydia, Mycoplasma, Rickettsia spp.

MEDICAL PROTOZOLOGY.

Different types of parasites. Classification, properties and structure and life cycle, including the identification of various states, of the following Protozoa plasmodium spp., Toxoplasma gondii Entamoeba Histolytic and gingivalis, Opportunistic Pathogenic amoebae, Non-pathogenic amoebae Giardia intestinalis Trichomonas, spp., Chilomastix meynili, Balantidium Coli, Trypanosoma Spp., Leishmaniasis spp.

GENERAL

Principles of antibiotic and chemotherapy modes of bacteria resistance to Antibiotics viral vaccines. Prophylactic immunization Transmission and Control of infection agents.

CHEMICAL PATHOLOGY.

CLINICAL CHEMISTRY.

Requests for laboratory investigations; Collection and preservation of Specimen for investigations; Reference values; Traditional and S.I. units; Homeostasis in Clinical Chemistry; acid-base balance; Definitions and Causes of hypernatraemia and hyponatremia; phosphate disorders; Parahormone, calcitonin and cholecalciferol, Definition and causes of Hyper and hypocalcaemia, Definition and causes of Rickets, osteomalacia And osteoporosis.

Blood glucose homeostasis; Glucose tolerance tests-performance and Interpretation; diabetes mellitus; formation of free fatty acids, Ketone Bodies and lactate; plasma lipids, cholesterol, triglyceride, phospholipids and Non-esterified fatty acids; plasma lipoprotein and causes of hyper and Hypolipoprotein-aemia.

Concept of risk factors for diseases and significance of prevention plasma Proteins-Reference values separation of fractions and variations in health And disease. Paraproteinaemias; Bence-Jones. Proteinuria and Significance;

Plasma enzymes-Transaminases, alkaline and acid phosphatases, creatine Kinase lactic dehydrogenases and their uses in diagnosis and management Of disease, Definitions, causes and consequences of some common Inborn errors of metabolism, Galactosemia; lactose intolerance, Albinism Amino-aciduria, phenylketonuria, Definitions, causes and consequences of Jaundice, Uraemia, Creatinine clearance, Tests of hepatic function; Jaundice, hepatocellular and obstructive functions of the hypothalamus And anterior pituitary Thyroid functions and investigation of thyroid Disorders; Assessment of gonadal functions and investigation of thyroid Disorders Assessment of gonadal function in men and women Diagnosis Of pregnancy, assessment of fetal and placental integrity. Biochemical diagnosis of cancer tests of gastrointestinal function;

2.10 **HAEMATOLOGY AND BLOOD TRANSFUSION HBT 401,
Course Content;**

- i. **Biology of Blood Cells (including development and physiology of hemopoietic cell)**
- ii. Erythropoiesis

- iii. Development and regulation including maturation, function and destruction.

Haemoglobins.

- i. Structure and function of haemoglobins)
- ii. Genetic control of haemoglobin synthesis
- iii. Abnormal haemoglobin structure and function
- iv. Clinical syndromes associated with abnormal haemoglobins.
- v. Genetic counseling
- vi, Antenatal diagnosis of haemoglobinopathies.

Anaemias,

General Introduction to anaemias.

Leukaemias

General introduction to leukaemias and their management

Hematological; Solid Tumours.

- i. Hodgkins lymphoma
- ii. Non-hodgkin's lymphoma
- iii, Burkitt's Lymphoma Definition, Presentation Diagnosis
Management.

Blood Coagulation and Fibrinolysis.

- i. Haemostasis, Venous thrombosis
- ii. Management of bleeding disorders
- iii. Anticoagulant therapy

Blood Groups

- i. Red cell antigens and antibodies, and their interaction
- ii. Presentation of red blood cells
- iii. Indications for blood transfusion
- iv. Rhesus incompatibility; Haemolytic disease of New born.

Practical Haematology.

Principles of Haemoglobin and haematocrit estimation,

Blood films and staining WBC and platelet counts Film of SS and SC

patients.

Film of iron-deficiency and folate-deficiency anaemia

E.S.R. estimation.

Tests for Thrombin time, PTTK Estimation of Fibrin degradation products

Test of platelet aggregation factor 3 estimation

Blood grouping and crossmatching

Principles of the identification of antibodies in serum

IMMUNOLOGY

Innate immunity-factors affecting e.g. age species specific anatomical

Factors skin, membranes), etc. Nutrition, hormones; Acquired immunity-

Active and passive - factor affecting acquired immunity.

Lymphoproliferative organs and their function in the immune response;

Structure and function of immunoglobins; Biosynthesis of immunoglobins;

The thymus and its role in the immune response; Deficiencies in cell-

Mediated immunity Hypersensitivity – immediate and delayed Anaphylaxis

Immune tolerance. Tissue and organ transplantation HLA system

Immunosuppression, malnutrition and immunity, immunity and Bacterial

Infections (including oro-facial bacterial infections) immunity and viral
Infections (including oro-facial viral infection) immunity and protozoal and
Helminth infestations, Immunity and fungal infections, Vaccination and
Immunization Autoimmunity Host preservation of “self (Host surveillance)
Examples of Autoimmune disease; possible mechanism involved in
Pathogenesis immunohematology – ABO System, Rhesus Incompatibility
Immunity and malignancies tumor antigens.

PHARMACOLOGY (PHA) 400 LEVELS.

Course Content.

a. General Pharmacology PCO 401 (2 Units)

Scope of pharmacology, origin and sources of Drugs; Routes of
Administration of Drugs, Pharmacokinetics; Absorption of Drugs, Excretion
Of Drugs, Biotransformation of Drugs/Structure Activity Relationship, Mode
Of Action of Drugs; Types of Drug Action.

Drug Action in man compliance; individual Variations, presence of other
Drugs; Genetic Effects; Tolerance and Tachyphylaxis, Effects of Diseases;
Drug Toxicity; Adverse Drug Reactions, Drug Dependence; Drug
Interactions.

B, Systemic Pharmacology – PCO 402 (3units)

i. Neurohumoral Transmission; Drugs on Neuroeffector sites;

Autopharmacoids;

Review of Neurohumoral Transmission: Transmitters in the
Central and Peripheral Nervous System; Cholinergic and
Adrenergic Receptors; Cholinergic Stimulants and Blocking

Agents; adrenergic Stimulants and Blocking Agents Autocoids
Histamine Receptors and Histamine Antagonists; 5 -
Hydroxytryptamine; Renin Angiotensin, Kinins Plasma Kinin –
Bradykinin-kallikrein; Substance P; Prostaglandin; leuko-trienes;
Cyclic Nucleotides and other mediators.

ii. Drugs Acting on the Alimentary System PCO 402

Vomiting - Antiemetic; Constipation-Purgatives; Antacids -
Anticholinergics – H₂ Receptor Antagonists – Ucler Healing Drugs;
gastrointestinal Hormones-Pentagastrin - Secretin; Non-specific
Antidiarrhoea Drugs; Lactulose, lipid Disorders- Cholestamine.
Pancreation; Cholecystokinin.

iii. Drugs Acting on Respiratory System PC 402.

.Oxygen therapy. Bronchodilator drugs' Asthma-status Asthmatics
cough suppressants; Mucolytic Agents, Respiratory Stimulants,

iv. Drugs Acting on Blood and Blood forming Organs PC 402

Anaemias; Iron Deficiency and other Hypochrommic Anaemias;
Megaloblastic Anaemias; Iron-Cobalamins - Fibrinolysis
Anticoagulants; Heparin Coumarin; Indandiones' Fibrinolysis-
Fibrinolytic; Thrombus; Platelet Aggregation Inhibitors; Blood
Liquid lowering Drugs.

v. Drugs Acting on the Cardiovascular System PC 402.

Heart Failure and its Drug Management; Anti-Anginal Drugs;
Ischaemic Heart Disease and its Drug Management
Antiarrhythmic Drugs; Hypertension and its Drug Management
Vasodilators.

vi **Drugs Acting on the Urinary System PC 402.**

Diuretics, Alteration of Urinary pH; Urinary tract infections; Renal Failure; Immunity, Immuno-Suppressive Agents.

vii **Antimicrobial, Antifungal and Antiviral Drugs & Drugs Against Human Protozoal Diseases PC 410**

Microbes in man; Mode of action of antimicrobial Drugs;

Sulphonamides; penicillins; Cephalosporin Aminoglycoside Antibiotics; Lincomycin, Peptide Antibiotics; Drugs Treatment of Tuberculosis; Miscellaneous Antibiotics, Vancomycin Spectinomycin, Fusidic Acid; other synthetic Antimicrobial Drugs Nalidixic Acid; Nitrofurantoin; Drug; Treatment of Leprosy; Antifungal Agents; Polyene Antifungal Antibiotics, Fluoroquinolones Pyrimidine; Imidazole.

Miscellaneous, Antifungal Agents, Antiviral Agents, Methisazone Idoxuridine; Cytarabine Adenine Arabinoside, Interferon; Humoral Immunoglobulin.

Malaria; Trypanosomiasis, Leishmaniasis;

Ankylostomiasis; Ascariasis; Trichuriasis, Strongyloidiasis, Enterobiasis;

Trichinosis; Filariasis, loiasis, Onchocerciasis, Dracontiasis, Taeniasis,

Cystoceleasis, Hydatid Disease; Diphyllorhynchiasis; Tape Work.

viii **Chemotherapy of Malignant Diseases PC 411.**

Major features of Malignant Diseases; Review of Cell Kinetics, Cell Cycle specificity, Cell-Cycle Non-specificity, Cancer Cell versus Bacterial infection; principles of Cancer Chemotherapy; Adverse Effects of Antineoplastic Drugs; Alkylating Agents; Antimetabolites; Natural Products, Anthracycline Antibiotics; other Antibiotics Enzymes; Steroid Hormones and Antagonists; Miscellaneous Anticancer Drugs; Agents for Immunotherapy, Radio-activity.

Drugs Acting on the Central Nervous System PC 413.

Special situation of Drug Action, Entry of drugs in CN.S. Non-narcotic Analgesics; Opiate Receptors; Narcotic Analgesics; narcotic Antagonists and Partial Agonists; Antipyretic Agents; Sleep; Barbiturates and Non-Barbiturate Agents, Alcohols; Review of General and local Anaesthetic Drugs Anaesthesia in person already taking drugs; Neuromuscular Blocking Agents; Central Nervous System stimulants; Anticonvulsant Drugs Epilepsies Principles of Antiepileptic Treatment Review of Different groups of Antiepileptic Drugs; Status Epilepticus; Epilepsy and special situations - pregnancy; contraception; Anaesthesia; Surgery; Miscellaneous Anticonvulsant Drugs; Drug Treatment of Parkinsonism; Levodopa; Decarboxylase Inhibitors, bromocriptine; Amantidine. Anticholinergic; Anticholinergic, Antihistaminics; Phenothiazine; Drug Therapy Spasticity, Dantrolene, Baclofen, Interneuronal Blockers Drugs. in Myasthenia Gravis.

Drugs in Mental Disorders PC 413.

Psychoses; Depression Anxiety Neuroleptic - Phenothiazine
Butyrophenones, Thioanthines; Diphenylbutylpiperidines; Dihydroindoles,
Dibenzodiazepines; Rauwolfia Alkaloids; Antidepressants with sedative
Properties; Thymoleptics; Tricyclics; Bicyclics, Teracyclics, Monoamine
Oxidase inhibitors (Hydrazines and non-hydrazine), Amino acid Precursors.
Of transmitter Amines, Amines; tetrahydroisoquinoline Derivatives; lithium;
Psychostimulants; psychodysleptics.

500 LEVEL

MEDICINE 500 LEVEL

Students should be,

- Fully conversant with the principles of ethical medical practice
- Aware of the role of medical/dental practitioners in the society and their responsibility in promoting and maintaining the good health of the populace at all times.
- Able to diagnose psychosomatic and psychiatric diseases and refer as appropriate.
- Well aware of the role of research as a tool for continuing improvement in health care delivery.

4.2 LECTURES/SEMINAR/CLINICAL COURSE CONTENT

Areas to be covered include pathology, pathogenesis, aetiology

Clinical manifestations, natural history, treatment and prognosis.

GENERAL.

Fever, pain, coma, acute poisoning, anaphylaxis

CARDIOLOGY

Rheumatic fever, rheumatic heart disease, Infective endocarditis

Ischaemic heart disease, Hypertension, Dysrhythmias and cardiac

Arrest, Pericarditis, Cardiomyopathy, Heart failure, investigation of Cardiovascular disease.

DERMATOLOGY

Parasitic and viral skin disease, Eczemas/dermatitis, pruritus, Leprosy and other granulomas, Drug eruption. Pigmentary Disorders, skin manifestations of systemic disorders.

ENDOCRINOLOGY

Diabetes mellitus, Disorders of the thyroid parathyroid disorders Adrenal disease. Disorders of nutrition in the adult Disorders of Hypothalamic-pituitary axis. Endocrine disorders of ovaries and Testes.

GASTROENTEROLOGY

Jaundice. Diarrhoeal disease. Amoebiasis, Hepatitis, Intestinal Helminthiasis. Schistosomiasis. Peptic ulcer disease. GIT Malignancy, Diverticular disease Liver carcinoma liver cell failure

HAEMATOLOGY

Nutritional anaemia. Hemolytic anemia and G-6-P deficiency Disease
Sickle cell disease Hypoplastic and myeloblastic anaemia, Hemorrhagic disorders. Polycythemia and myeloproliferative Disorders. Malignant Lymphomas, Multiple myeloma, Thrombotic Diseases.

RHEUMATOLOGY

Autoimmunity and connective tissue diseases Lupus

Erythematosus. Gout

Rheumatoid arthritis. Osteoarthritis.

INFECTIOUS DISEASES.

Malaria - Typhoid, Viral and related diseases. Acquired immune

Deficiency syndrome – AIDS, Amoebiasis. Tetanus. Septicaemia.

Sexually transmitted diseases – STD.

ONCOLOGY

Clinical effects of malignant disease. Management of malignant

Diseases

Management of dying patients and of their relatives.

RESPIRATORY MEDICINE.

Respiratory infections – Upper and lower tract;

Pulmonary Tuberculosis. Sarcoidosis. Pneumothorax and pleuritis
(wet and dry).

Pulmonary abscess and emphysema Bronchiectasis. Bronchial

Asthma. Obstructive airways disease and Respiratory failure

Pulmonary embolism, Pneumoconiosis.

NEUROLOGY

Cerebrovascular Accident Neuropathies Epilepsy and other

Seizures. Meningitis and encephalitis. Parkinsonism and motor

Neurone disease Dementia.

Myasthenia gravis and muscular dystrophy.

RENAL MEDICINE.

Water, electrolyte and hydrogen balance Urinary tract infections.

Glomerulonephritis and acute renal failure Nephritic syndrome.

Chronic renal failure.

GENERAL THERAPEUTICS.

Prescription of drugs.

Principles, sethical considerations and practices.

Fever, pain Nausea and vomiting Diarrhoea, Constipation.

Use and abuse of hypnotic. Anxiolytics and tranquilizers

Antidepressant therapy.

Use and abuse of antibacterial medications. Chemotherapy of

Malignant disease.

Chemotherapy of infections.

Approach to management of substance abuse including alcoholism

And drug addiction.

SURGERY 500 LEVEL

LECTURE; TOPIC

1 ACUTE INFECTIONS

Cellulitis. Erysipelas, Abscess. Boils. Carbuncles.

2. SPECIFIC INFECTIONS

Gas Gangrene Tetanus. Anthrax. Monilla. Oral manifestation

3. CHRONIC INFECTION

Tuberculosis. Syphilis. Actinpmycosis.

4. HOSPITAL INFECTION

Control of hospital infection.

5. CHEMOTHERAPY IN SURGICAL PRACTICE

Tetracycline. Chloramphenicol. Erythromycin. Neomycin.

Nitrofurans.

Streptomycin. Penicilins. Anti-Fungal Agents.

6. FLUID THERAPY

Causes of shock Varieties of shock mechanism of shock.

Treatment of shock.

7 BLOOD TRANSFUSION

Blood groups and cross-matching of blood

Precautions necessary before transfusion blood

Dangers of transfusion.

8. OTHERS SUBSTITUTES FOR BLOOD;

Plasma. Dextran. Others

9. METABOLIC RESPONSE TO INJURY

10. WOUNDS AND WOUND HEALING

11. BURN WOUNDS

General Effects of Burns. General and local treatment

12 **MOUTH AND TONGUE**

Congenital lesions: Dermoid cysts. Ankyloglossia cleft lip and

Palate

Inflammation and Ulceration

Leukoplakia

Tumours of the mouth and tongue: Carcinoma of the lip.

13. **THE NECK**

Anatomy

Branchial cyst. Branchial fistula. Cystic Hygroma

Traumatic lesions e.g. cut throat.

Infections; Acute lymphadenitis; Chronic lymphadenitis

Tuberculous Cervical lymphadenitis.

Differential diagnosis of Cervical Swellings.

The subjects of JAWS' and the Salivary gland" will be dealt with

In detail on Oral Surgery.

14. **SURGERY OF THE CHEST, SURGERY OF THE HEART, LUNG
AND VESSELS.**

15. **SURGERY OF THE ABDOMEN**

16. **SURGERY OF THE LIMBS**

17. **THE SKIN**

Anatomy and physiology of the skin Sebaceous cyst Dermoid

Cyst. Epidermoid cysts. Molluscum Sebaceum. Tumours of the

Skin Papilloma. Bowen's disease. Basal cell carcinoma (Rodent Ulcer)

Squamous cell carcinoma Melanoma. "Malignant

Melanoma.

18. HEAD INJURIES, FRACTURES AND DISLOCATIONS.

Fractures of the skull infections of the scalp Osteomyelitis of skull

ANESTHESIOLOGY

Course Content

Resuscitation Principles and Practice

1. Airway Management: Anatomy of Airway. Cause of Obstruction

Diagnosis of obstruction. Consequences of obstruction Methods

Of securing and maintaining the airway

li} Diagnosis and management of respiratory insufficiency:

Clinical features

Laboratory investigations e.g. Spirometry, blood gases

Management e. g. oxygen therapy and positive pressure ventilation.

lii} **Circulatory insufficiency**

Factors affecting cardiac output blood pressure and venous return

Schock cardiac standstill.

iv) Diagnosis and management of circulatory insufficiency and

cardiac standstill clinical features of shock clinical features of

cardiac arrest Management of airway, ventilation blood volume

replacement, control of infection and monitoring devices

Management of clinical features of cardiac arrest Ventilation and

External cardiac massage and drugs.

v) **The Unconscious Patient**

- a) Cause of coma, with particular reference to anaesthesia
- b) Cardinal principles in the immediate management
- c) Management of patient in prolonged coma
- d) Cerebral function monitoring

2. a) **Preparation of patient:** History and examination of patient.

Routine and special investigations premedication

- b) Choice Anaesthesia – general or regional or local
- c) Induction and maintenance of anaesthesia
- d) Endotracheal anaesthesia
- e) Interaction of drugs e. g. of Anaesthetic agents and drugs for coincidental therapy
- f) Techniques of anaesthesia e.g. inhalational relaxant. Spinal, epidural, field block, nerve blocks.
- g) The effect of anaesthesia on some disease states e.g. diabetes, hypertension with hypertensive heart disease, sickle cell disease **anaemia.**

3 **ANAESTHETIC DRUGS**

- a) **Premedicant drugs – opiates, anticholinergic anxiolytic and sedatives.**
- b) General anaesthetic agents
 - I **Induction agents – thiopentone propofol diazepam althesia.**
Keta-mine.

li Inhalation agents - other halothane trichlorethylene.

Ethylchloride.

Adjuvants. Muscle relaxants. Anticholinesterases. NaHCO₃

Osmotic diuretics.

RES. 501 - CLINICAL ENDODONTICS

(LECTURES & CLINICS) CREDITS - 2

CLINICAL Anatomy Endodontic equipment and instruments sterilization of

Instruments. Simple root canals treatment in anterior and posterior teeth

Anaesthesia and analgesia for endodontic treatment Access cavities

Apex locators. Canal preparation techniques. Root filling materials and root-filling techniques.

SRES-502 – CLINICAL OPERATIVE DENTISTRY

CREDIT; 1

Complex amalgam and composite fillings pin retained restorations. Other

Direct tooth-coloured fillings. Simple anterior crowns. Temporary crowns.

RES. 503 - INTRODUCTION TO OCCLUSION

CREDIT; 1

Descriptive terminology. Functional anatomy of teeth and temporo-mandibular joint.

Dento-facial relationships, Biomechanics of the masticatory system

Alignment and occlusion of the Dentition. Mechanics of mandibular

Movement Criteria for Optimal function occlusion. Determinants of

Occlusal morphology.

STAFF - DEAN'S OFFICE

S/NO.	NAMES OF STAFF	QUALIFICATIONS WITH DATES	RANK/DESIGNATION
1.	Prof. (Mrs.) A.A. UMWENI	B.D.S,M.Sc D.Orth.RCS, FWACS	Professor/Dean
2	F.I. ABU	B.Sc. Accounting 2000,MPA (Benin) 2010	Admin Officer/School Secretary
3.	Esosa McOLIVER	B.A.(Hons) ISD (Benin) 2008	Admin. Assistant
4.	Edwin O. OMORUYI	B.Sc Public Admin 1996 M.Sc Public Admin 2006	Senior Executive Officer
5	V.C. ANYANEBECHI (Mrs.)	BPA (Benin) 2005 NECO 2000	Asst. Chief Conf. Sec.
6.	T. ANIYIE (Mrs.)	50 wpm 1980 (Pitman's London); NABTEB 2001, Cert. in Comp. Training 2001	Chief Typist
7.	H. ILAWAGBON	1 st Schl. Leaving Cert; 1972; Driving License 1978; Trade Test III-2003; II-2004 & I – 2005	Transport Supervisor
8.	Nehiweze AGHEDO	B.Sc (Hons) Econs (Ife) 2005 PGD (LASU) 2008	Higher Executive Officer
9.	Patience Okeremute IDEH	B.Sc (Hons) Pol. Sc. & Public Admin. (Benin) 2005	Higher Executive Officer
10.	Patience ENAGBAMA (Mrs.)	2005; NABTEB (Adv. Level)2006	Asst. Executive Officer
11.	Prosper KALESAWO (Mrs.)	WASC, 2007; Diploma in Comp. 2006-2007	Data Entry Personnel
12.	E.O. EBIALA (Mrs.)	1 st Leaving Cert. 1972; Typing (25 & 35 wpm) 1989; Computer cert. 2003; WASC/SSCE 2007	Typist II
13.	S. OMUEMU (Miss)	GCE O/L, 1996; NECO 2004	Clerical Officer
14.	Efosa Mabel OGBESoyen (Mrs.)	G.C.E 1989	Clerical Officer
15.	Evelyn A. EGBON (Mrs.)	WAEC 1994, Diploma in Accounting (1997) A.A.U. Ekpoma)	Clerical Officer

HEADS OF DEPARTMENTS

The following are the heads of departments:

1. Oral Surgery/Pathology Prof. O. N. Obuekwe
2. Restorative Dentistry Dr. M.A. Sede (Ag. Head of Department)
3. Periodontics Dr. P.I. Ojehanon (Ag. Head of Department)
4. Preventive Dentistry Dr. (Mrs.) I. N. Ize-Iyamu (Ag. Head of Department)
5. Oral Diagnosis & Radiology Dr. U.I. Madukwe (Ag. Head of Department)

DEPARTMENT OF ORAL DIAGNOSIS & RADIOLOGY

ACADEMIC STAFF OF THE DEPARTMENT

S/NO.	NAMES OF STAFF	QUALIFICATIONS WITH DATES	RANK/DESIGNATION
1.	Dr. I. U. Madukwe	Associate Professor	MDS, M. Sc, MHPM, FMCGDP
2	Dr. E. Ogbodie	MB, BS, FMCR	Lecturer I
3.	Dr. O Ehigiator	BDS, M.Sc., Fellowship	Lecturer II
4.	Dr. L. Igbinosa	BDS, MPH	Lecturer II

NON-ACADEMIC STAFF

S/NO	NAMES OF STAFF	QUALIFICATION WITH DATES	RANK POSITION
1	Helina NWOHU (Mrs.)	Pry Six Cert., Pitman London -1984-86, SSCE, NECO-2003, Diploma in Computer UNIBEN, 2004	Chief Typist
2.	Kassimu MOMODU (Mr.)	Primary Six Certificate 1968, Labour Relation & Staff Training Cert. 2011	Office Assistant III

INTRODUCTION

Oral diagnosis is a systematic observation and description of oral diseases in order to identify them. Diagnosis is based on favourable interview, examination and investigation of the patient's ailments. Adequate inquiry and thorough examination and investigation are therefore very important in oral diagnosis most especially when dealing with pain and soft tissue lesions.

COURSES:DESCRIPTION AND CONTENT

500 LEVEL LECTURES

SCHEDULE 1:INTRODUCTION TO ORAL DAIGNOSIS

The mouth and the Dental patient

Diagnostic process

History taking

Clinical examination of the head and neck

Investigations

Making a diagnosis and differential diagnosis

SCHEDULE II- INTRODUCTION TO DENTAL RADIOLOGY

Development of Dental radiology, Basic radiation physics, the production of x-rays, their properties and interactions which result in the formation of radiographic image, radiation biology and protection, radiography-techniques involved in producing the various radiographic views, introductory advanced image techniques-computerized tomography (CT), magnetic resonance imaging and ultrasound.

600 LEVEL LECTURES

SCHEDULE 1: ORAL DIAGNOSIS

History taking, clinical examination and investigation
Examination of swellings of the oral mucosa, head and neck
Principles of oral, head and neck radiography and radiology
Oral mucosa in health and in disease
Stains and discolouration of the teeth
Lymphatic drainage of the oral and maxillofacial region
Oral manifestations of adverse drug reactions
Diagnosis of deformities in the head and neck region
Evaluation and management of medically compromised patients
The geriatric patient

SCHEDULE II-(RADIOLOGY OF ORAL DISEASES)

The interpretation of radiographs in dental caries, developmental abnormalities, periapical lesions, periodontal lesions, cysts of the jaws, odontogenic tumours, other bone neoplasias, maxillary antral diseases, trauma to the teeth and facial skeleton, the temporomandibular joint and disorders of the salivary glands including sialography.

On completion of the course, the undergraduate student should be able to confidently clerk patients independently and partake in decision-making processes with the supervising lecturer, explain the production of ionizing radiation, image formation and principles of radiation biology and protection from effects of ionizing radiation to oneself, clinical staff and patients, carry out various radiological examinations of the teeth and jaws including practical film processing, recognize the radiological features of the diseases that affect the teeth and jaws.

COURSE EVALUATION

Course evaluation is designed to be continuous. This consists of evaluation of clinical performance, tests, assignments and practicals.

**DEPARTMENT OF PERIODONTICS
ACADEMIC STAFF OF THE DEPARTMENT**

S/N	NAME OF STAFF	QUALIFICATIONS YEAR OBTAINED	APPOINTMENT TYPE	DESIGNATION	MDCN REG. NO.
1.	DR. P. I. OJEHANON	B.D.S (1982) FWACS (1996)	Permanent	SENIOR LECTURER/ HONORARY CONSULTANT	F462
2.	DR.O. AKHIONBARE	BDS (1982) FWACS (1998)	Permanent	SENIOR LECTURER/ HONORARY CONSULTANT	F240
3.	DR. A. O. UMOH	BDS (1995) FMCDS (2011)	Permanent	LECTURER I	FD1114
4.	DR. C. C. AZODO	BDS (2000) FMCDS (PROVISIONAL)	Temporary	LECTURER II	FD1943

NON-ACADEMIC STAFF

S/N	NAME OF STAFF	QUALIFICATIONS/ YEAR OBTAINED	DESIGNATION	TYPE OF APPOINTMENTS
1.	MRS. P. OKOJIE	Certificate in Dental Surgery Assistance 1988 - 1990 Certificate in Dental Surgery Assistance Technician Course (Clinical) 2004 - 2005	Dental Health Technician (Clinical)	Permanent
2.	MRS. E. O. UWAIFO	LL.B. - 2005	Higher Executive Officer	Temporary
3.	MRS. E. IRORERE	SSCE - 2005	Snr. Lab. Assistance (Technical)	Permanent
4.	MS. F. ORONSAYE	NECO/SSCE- 2005	Snr. Lab. Assistance (Technical)	Permanent
5.	EHIRIM U. JUDITH	B.Sc. Accts.- 2007	Snr. Data Entry Personnel (Administrative)	Permanent
6.	MRS. H. IMARIALU	HND – Dental Therapist	Chief Dental Therapist	Permanent
7.	DR. P. ERHABOR	BDS – 2003	Registrar I	Resident
8.	DR. I. UCHE	BDS – 2007	Registrar I	Resident

9.	Dr. V. ORHUE	BDS – 2007	Registrar II	Resident
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COURSE: DECSRIPTION AND CONTENT

Anatomy of the periodontium, physiology of the periodontium, biochemistry of the periodontium, the oral environment/defence mechanisms, immunology as related to the periodontium, plaque and periodontal tissues, etiology of periodontal diseases, calculus, types, location and significance, classification of periodontal disease, systemic factors influencing periodontal diseases, immunology of periodontal diseases, advanced periodontology, acute gingival conditions, chronic gingivitis, gingival swellings, gingival bleeding, acute periodontal conditions, periodontal pockets, bone resorption, periodontitis simplex, complex, juvenile periodontitis, malocclusion, trauma from occlusion, traumatic occlusion, parafunctional habits, gingival recession, mobility of teeth, apical lesions in relation to periodontal disease, periodontal abscesses, exposed dentine, rootfurcation, examination of patients, special investigations, epidemiology of periodontal diseases, preventive periodontology, principles of periodontal surgery, root planning and curettage, gingivectomy, gingivoplasty (gingival surgery), repositioned flaps, replaced flaps (flap surgery), frenectomy, root furcation management, mucogingival surgery, bone grafts and periodontal applications, post-operative management of patients, dentrifices, guided tissue regeneration techniques, halitosis, periocoronitis.

DEPARTMENT OF ORAL SURGERY AND PATHOLOGY

ACADEMIC STAFF OF THE DEPARTMENT

S/N	NAME	DESIGNATION	QUALIFICATIONS/YEAR OBTAINED	MDCN REGISTRATION
1.	Professor M.A. Ojo	Professor	Bachelor of Dental Surgery (BDS) (1977). M.Med Science (1985). Dip. Maxillofacial Radiology. (1999).	FD. 114
2.	Professor B.D.O. Saheeb	Professor	WASC (1967). GCE 'A' Level (1972). Bachelor of Dental Surgery with Distinction in Preventive (1978). FDSRCS (1988). FWACS (1993). FICS (1998).	FD.128
3.	Professor O. N. Obuekwe	Professor & HOD	Bachelor of Dental Surgery (BDS) (1987). FWACS (1996).	FD.639
5.	Dr. O. Akpata	Senior Lecturer	Primary Six Certificate (1966). WASC (1980). Bachelor of Dental Surgery (BDS) (1980). Fellowship of West African College of Surgeons (FWACS) (1991).	F.193

6.	Dr. (Ms). N. N. Nwizu	Lecturer 1	Bachelor of Dental Sc. (1992). M.Med.Science (1996).	
7.	Dr. F. O. Omoregie	Lecturer 1	Bachelor of Dental Surgery (BDS) (1997). M.Sc. Anatomy (2006). Fellow West African College of Surgeon (FWACS)-Oral Path. (2006).	FD.1201
8.	Dr. A. O. Osaguona	Lecturer 1	Bachelor of Dental Surgery (BDS) (1994). Fellow West African College of Surgeons(FWACS) Oral & Maxillofacial Surgery (2005)	FD.1042
9.	Dr. E. P. Egbor	Lecturer 1	Bachelor of Dental Surgery (BDS) (1999). Fellow West African College of Surgeon (FWACS Oral and Mallofacial Surgery) (2009).	FD.1416
10.	Dr. E. D. Odai	Lecturer II	Bachelor of Dental Surgery (BDS) (1999). National Postgraduate Medical College of Nigeria Part 1 (AFMCDS) (2001)	FD.1565

NON-ACADEMIC STAFF

S/N	NAME	DESIG-NATION	QUALIFICATIONS/YEAR OBTAINED	MDCN REGISTRATION
1.	Mrs. R.V.A. ILEN	Chief Conf. Secretary	HND Sec. Studies (1981). MPA (1997). PGD (TED) (1998). M.Ed. Bus. Edu. (2001)	N/A
2.	Mrs. H. IMARALU	Asst. Chief Therapist	GCE (1980). OND – Dental Assistant (1983). HND Dental Therapy (1988)	N/A
3.	Mrs. Q. OKORO	Medical Lab. Scientist 1	Associate Institute of Medical Laboratory Scientist (AIMLS) (2006).	N/A
4.	Mrs. R. ONWATOGU	Snr. Lab. Supervisor	NECO (2008).	N/A
5.	Mrs. F.A. OSAHON	Office Assistant	First School Leaving Certificate (1976). Staff Training Conference UNIBEN (2011).	N/A
6.	Mrs. L. O. OSAMAGIOGHOMWENWI	Executive Officer	SSCE (2001); NCE (Econs/Social Studies) (2006)	N/A

COURSE: DESCRIPTION AND CONTENT

ORAL SURGERY

History taking, patient examination, diagnosis, treatment planning
Examination of the head and neck swellings, biopsies
Principles of oral and maxillofacial surgery, operating room, instruments, surgical team
Local anaesthesia technique, complications including facial nerve palsy, paraesthesia, haematoma formation, broken needles, syncope
Extraction of teeth and roots, complications and their treatments,
Post operative management of the patient, control of pain and bleeding,
Basic surgical procedures, healing of wounds (soft tissues and bones))
Suturing techniques, different suturing materials, raising flaps, different flaps used, osseous surgery
Relationship of maxillary antrum, management of foreign bodies in antrum,
Fractured aids to endodontics and orthodontics, apceectomies, retrograde root filling, exposure of canine and fraction
Diagnosis and treatment of cysts of the jaws
Surgical aids to replacement of teeth, implantology,
Introduction to preprosthetic surgery, distraction osteogenesis
Temporomandibular joint disorders and their managements
Orofacial infections and management
Introduction to orthognatic surgery, facial profile, cephalometry
Surgical treatment/management salivary gland lesions, sialolithiasis,
Some common tumours of the jaws and their management including carcinoma, sarcoma,
Inflammatory diseases of bone and management, osteomyelities, osteoradionecrosis, modern technique of diagnosis, role of systemic diseases in oral maxillofacial surgery, use of drugs, adverse drug reactions
Maxillofacial injuries, fracture of maxilla, zygoma, orbital floor, nasoethmoidal fracture, fracture condyle, condylar dislocation, lacerations, mandible.
Modern techniques of investigations of maxillofacial fractures, use of CT scan, magnetic resonance imaging MRI
Modern techniques of management of maxillofacial fractures, use of bone plates and eyelet wires, kirschner wire
Management and care of patients with maxillofacial injuries, maintenance of airway, tracheostomy
Cleft lip and palate management, facial deformities
Plastic surgery: burns and technique of skin grafting
Treatment of scars, burns, keloids and removal of tattoos
Management of emergencies including collapse due to respiratory or cardiac arrest, syncope, anaphylactic shock, hypoglycaemia, epilepsy, angina, haemorrhage, broken instruments.

ORAL MEDICINE

This shall be a continuation of the application of knowledge of general medicine as it relates to the practice of dentistry
Principles of oral medicine, normal oral mucosa, abnormal oral mucosa
Immunity, the oral mucosa in generalized disease,

Investigations/therapy, methods of investigations, principles of treatment, infections of oral the mucosa, bacterial, viral and fungi infections, mixed infections

Diseases of developmental origin: median rhomboid glossitis, white sponge naevi, local epithelial hyperplasia, albright's syndrome, recurrent oral ulcerations, minor, major, herpatic varieties, mixed ulcerations, recurrent oral ulcerations in children, bacquet's syndrome, premalignant lesions, leukoplakia, lichen planus, oral epithelial atrophy, submucosal fibrosis, nutritional disease, kwashiorkor, avitamins, iron deficiency, haematological disorders, clotting disorders, anaemias, leucopenia, including HIV/AIDS and Hepatitis viruses, endocrine disorders, acromegaly, addison's disease, hypothyroidism, diabetes mellitus, variations related to oestrogen, dermatological diseases including white lesions of the oral mucosa, lichen planus, pemphigus vulgaris, mucous membrane pemphigus and pemphigoid, erythema multiforme, psoriasis, lupus erythematosus, ehlers-danlos syndrome, epidermolysis bullosa, dyskeratosis, oral pigmentation, drugs, peutz-jegher's syndrome, addison's disease, oral-facial pain, chronic pain, oral dysaesthesia, burning mouth syndrome, atypical facial pain, atypical odontalgia, periodontalgia, TMJ pain (facial athromyalgia) diagnosis and management, Neuralgias of trigeminal nerve, auriculo temporal nerve, glossopharyngeal nerve, post-hepatic pain, referred pain, the significance of changes in sensation, metabolic bone disease

Salivary gland disorders, xerostomia, sialorrhoea, acute and chronic infections, mumps, sialolithiasis, fistulae, mucoceles, benign tumours, sjogren's mikulicz disease

Gastro intestinal disease-oesophageal reflux, plummer-vinson syndrome, sprue, chrohn's disease, intestinal polyposis, fibrocystic disease of the pancreas

Tumour-like lesions, granuloma, lymphoma, multiple myeloma,

Disorders of bone, osteopetrosis, cleiocranial dysostosis, HIV/AIDS and their orofacial manifestations

ORAL BIOLOGY

1. ORAL ANATOMY

Development of the human face, oral cavity, jaws, tongue and salivary glands

Deciduous and permanent incisors, canines, premolars and molars

Development of brachial arches and their derivatives

Mandibular and hyoid arches and relationship to Vth, VIIth and IXth cranial nerves

Growth of the face and jaws and development of nerve supply to the teeth

Formation of dental lamina and differentiation into tooth structures

Formation of deciduous and permanent teeth

Origin of tongue, buccal sulcus, thyroid, hyoid and salivary glands, amelogenesis, dentinogenesis, development of dental pulp

Formation of periodontal membrane, dental follicle, hertwig sheath

Detailed structure of formed dental tissues including cellular element

Physical and chemical properties, histo-chemical properties, calcifications, cementum, periodontal membrane, alveolar bone,

Mucous membrane, variations of epithelium in different parts of the mouth and adjacent structures including tongue, antrum epiglottis, mucous glands, fordcyce's anomaly, gingival, free and attached gingival, relationship to teeth and perio dental membrane, interdental papillae

Eruption of teeth, different theories, remnants of enamel epithelium, eruption cysts, mixed dentition, radiographic appearance at different ages, movement of teeth before and after eruption, normal limits, mesial drift over eruption, tilting, changes in bone and cementum, exfoliation of deciduous teeth, development of normal occlusion, the tongue, development, innervations, muscles, epithelium, taste buds, blood supply, lymphatic drainage, temporomandibular joint, development, structure, age changes movements

Growth of the jaws and changes throughout life

Maxillary antrum and relationship to teeth and nerves

Paranasal sinuses, lips, the salivary glands and ducts, relationship of facial nerves

Applied surgical anatomy of fascial layers of oral cavity, cervical fascial, lymphatic drainage, facial nerve, sphenopalatine ganglion.

2. ORAL PHYSIOLOGY

Calcium and phosphate metabolism, absorption, body requirement, role of citrate, blood levels, parathormone, thyroxine, calcitonin excretion, chemical composition of enamel, dentine, cementum, bone inorganic and organic, crystalline structure, hydroxyapatite, fluoride uptake, collagen, ascorbic acid, amino acids,

Theories of calcification, phosphate theory, seeding theory, changes in classification, permeability of dental hard tissues, age changes, resorption, exfoliation, changes in bone and cementum, hormonal influences on growth and development of teeth and jaws, nutrition and diet, calcium:phosphate ratio, effects of variations on caries, role of sugars in dental caries, fluoride-influences on enamel, mottling, flourisis, relation to dental caries prevention

Theories of mechanism, trace elements, molybdenum, selenium, magnesium, vitamins A, B, C, D

Saliva-organic and inorganic constituents, factors controlling and affecting secretions

Nervous control of flow, xerostomia, functions of saliva, calculus composition, formation, relation to dental disease

Dental caries-introduction to aetiology and pathology and current concepts

Physiology of taste and smell

Innervations of dentine

Role of teeth and oral structures in speech

Mastication and deglutition physiology of pain and pain perception

Introduction to muscle spindles and their functions

ORAL PATHOLOGY

Microbiology of normal oral flora and dental plaque

Dental Caries: aetiology of dental caries, pathology of dental caries, immunological aspects of dental caries

DEVELOPMENT AND ACQUIRED ABNORMALITIES OF TEETH AND JAWS:

Disturbances in number of teeth, disturbances in size of teeth, disturbances in form of teeth, disturbances in structure of teeth, odontomes, disorder of eruption and shedding of teeth, non-bacteria loss of tooth substance, discolouration of teeth, root fracture, age changes in teeth, development abnormalities of the face and jaws including common head and neck syndromes

LESIONS OF THE PULP AND PERIAPICAL TISSUES

Pulp calcification and necrosis, age changes in the pulp, aetiology of periapical periodontitis, acute periapical periodontitis, chronic periapical periodontitis, periapical lesions:-granuloma, abscess, cysts

GINGIVITIS AND PERIODONTAL DISEASE

Periodontal diseases:-aetiology, classification and histopathology, chronic gingivitis and chronic periodontitis, gingival enlargement and descriptive gingivitis, lateral periodontal abscess, periocoronitis, age changes in the periodontium.

INFECTIONS OF THE ORAL MUCOSA

Bacterial infections, viral infections, fungi infections, human immunodeficiency virus (HIV) and AIDS, spread of orofacial infections:- cellulites, ludwig's angina, healing of wounds.

CYSTS OF THE JAWS AND ORAL SOFT TISSUES

Classification and incidence of cysts of the jaws, odontogenic cysts, definition and origins, non-odontogenic cysts, non-epithelialized primary bone cysts. Cyst of the soft tissues.

ODONTOGENIC TUMOURS

Classification, epithelial odontogenic tumours, mesenchymal odontogenic tumours, mixed (epithelial and mesenchymal) tumours

NON-ODONTOGENIC TUMOURS AND RELATED DISORDERS OF THE ORAL MUCOSA

Squamous cell papilloma and other associated lesions, connective tissue hyperplasia, connective tissue neoplasms and related conditions

SALIVARY GLAND DISORDERS

Developmental anomalies, sialadenitis, obstructive and traumatic lesions, sjorgren syndrome and related disorders, sialadenosis, HIV-associated salivary gland disease, salivary gland tumours, age changes in salivary glands

INFLAMMATORY BONE LESIONS

Healing of bone, inflammatory diseases of bone

CONGENITAL AND METABOLIC CONDITIONS OF BONE

Inherited and developmental disorders of bone, metabolic and endocrine disorders of bone

TUMOURS AND OTHER LESIONS OF BONE

Fibro-osseous lesions, giant cell lesions, pagets's disease of bone, other tumours:- lymphomas, osteomas, sarcomas

WHITE AND PIGMENTED LESIONS OF THE ORAL MUCOSA

Classification and definition of histopathological terms, hereditary conditions, traumatic keratoses, leukoplakias, dermatological causes of white patches, benign lesions of melanocyte origin, pigmentations caused by exogenous deposits, syndromes associated with oral and cutaneous pigmentation.

VESICULOBULLOUS AND ULCERATIVE DISEASES OF THE ORAL MUCOCA

Classification of oral ulceration, traumatic ulceration, recurrent aphthous stmatitis (RAS), vesiculobullous disease

ORAL CANCER AND PREMALIGNANT LESIONS OF THE ORAL MUCOSA

Premalignant lesions and conditions, squamous cell carcinoma, exfoliation cytology, basal cell carcinoma, menanocyteic naevi, malignant melanoma and associated neoplasms.

DISORDER OF THE TEMPOROMANDIBULAR JOINT (TMJ)

Developmental disorders, inflammatory disorders and osteoarthritis, functional disorders, age changes in the jaws and TMJ.

COMPULSORY BASIC REQUIREMENT

ORAL SURGERY KIT FOR STUDENTS IN THE DEPARTMENTS

- 1. Examination set**
 - probe
 - mouth mirror
 - college tweezers

2. **forceps**
 - upper molar forceps (Rt & Lt)
 - upper premolar forceps
 - lower molar forceps
 - root forceps (upper and lower)
 - Upper and lower anteriors
3. Dental syringe
4. 10 dental injection needles
5. 10 dental local anaesthetic cartridges

DEPARTMENT OF PREVENTIVE DENTISTRY

The department of Preventive Dentistry is made up of three specialties in dentistry which are:

Orthodontics
Paedodontics and
Community Dental Health

ACADEMIC STAFF OF THE DEPARTMENT

S/N	NAME (SURNAME LAST)	DESIGNATION	QUALIFICATION/ YEAR OBTAINED	MDCN REGISTRATION NUMBER
1.	Prof. (Mrs.) A. A. Umweni	Professor/ Consultant Orthodontist	B.D.S 1981, M.Sc. 1988, D.Orth., RCS 1989, F.W.A.C.S 1999.	F 216
2.	Dr. Emmanuel Olubusayo Ajayi	Senior Lecturer/ Consultant Orthodontist.	B.D.S 1992, M.P.H 2000, F.W.A.C.S 2001.	F 945
3.	Dr. (Mrs.) Idia Nibokun Ize-Iyamu	Ag. HOD/Lecturer I/ Consultant Orthodontist	B.D.S 1992, F.W.A.C.S 2004.	FD1051
4.	Dr. S. A. Okeigbemen	Lecturer I/ Consultant in Community Dentistry	B.D.S 1992, MPH 2006. F.M.C.D.S 2006	FD 924
5.	Dr. (Mrs.) B. I. Mohammed	Lecturer II	B.D.S 1997, Part 1 F.W.A.C.S 2005.	FD 1,180
6.	Dr. Joseph N. Otaren	Lecture II	B.D.S 1995, Part 1 F.W.A.C.S 2009.	FD 1, 142

NON-ACADEMIC STAFF

S/N	NAME (SURNAME LAST)	DESIGNATION	QUALIFICATION/YEAR OBTAINED
1.	F. Jibunoh (Mrs.)	S.D.S.T	Cert. in Occupational

			Health Nurse, 2003. SSCE, 2008.
2.	Mr. M O. Okotie	Executive Officer	Diploma in Law, 1998/1999 and WAEC 1985
3.	F. Asenoguan (Mrs.)	Lab. Supervisor	First School Leaving Cert. 1963, NECO 2005.
4.	Mr. B. I. Udo-Inyang	Office Asst. I	First Sch. Leaving Cert. 1977, Diploma in Book keeping/Accounts 1980, NECO 2005.

COURSE: DECSRIPTION AND CONTENT

ORTHONDONTICS

Introduction to orthodontics (definitions and scope) growth and development of the craniofacial complex. Normal development of the dentition (primary and permanent)

Occlusal variations: concept of normal occlusion and ideal occlusion, malocclusion (definition, classification and aetiology) clinical assessment of orthodontics patients, radiography in orthodontic management, cephalometric radiology, biology of orthodontic tooth movement, interceptive orthodontic treatment, serial extractions, principles and design of removable appliances, management of malocclusion with removable appliances, principles of fixed appliance therapy, principles of functional appliance therapy, principles of extraction therapy, treatment of class I malocclusion, treatment of class II division I malocclusion, treatment of class II division 2 malocclusion, treatment of class III malocclusion, orthodontic management of cleft lip and palate patients, surgical orthodontics

Dental students are taught the development of the skull and the facial skeleton and variations that results in development of occlusion disharmony.

500 Level

Students are introduced to some basic clinical demonstration on patients and laboratory models.

600 Level

Students are exposed under strict supervision to the management of patients with removable appliances.

PAEDODONTICS

COURSE CONTENTS

Growth maturation and development of the normal child, history taking and consent to treatment, management of the anxious and the handicapped child, extraction and

exfoliation of teeth structure, morphologic differences between primary and permanent teeth with special reference to aetiology and progress of caries, special features of dental caries in children, local and topical anaesthesia, saliva control and use of rubber dam, management of early and advanced caries, pulp therapy in children (pulpotomy, pulpectomy, apexification, root filling), extraction of teeth, space maintainers, oral habits, developmental anomalies of the teeth and jaw especially enamel defects/dentine defects, management of dental trauma in children, mechanical and chemical plaque control, pits and fissures sealants, water fluoridation, systemic fluoride and fluorides metabolism, professionally applied and self administered fluorides, dental radiology in children, common childhood ailments affecting the mouth, dental problems and the disabled child, dental management of the medically compromised child, management of periodontal and soft tissue lesions.

COMMUNITY DENTISTRY

COURSE CONTENT

Introduction to Dentistry-brief history of the profession and responsibilities

Public health dentistry, definition, scope and competences

Ethics and jurisprudence-consent, malpractice, negligence and codes of ethics, forensic dentistry and legal vulnerability, introduction to bio-statistics and dental informatics, oral epidemiology-general principles, uses and methods, measurement of dental diseases, social dentistry/role of behavioural sciences in dentistry

Oral health education and promotion-principles and practice, principles of preventive dentistry-dental caries and periodontal diseases, fluoride in preventive dentistry-systemic and topical application, pits and fissuresealing in dentistry, infection control in dentistry, minimally invasive dentistry including atraumatic restorative technique, oral health service organization and delivery-needs and resources, oral health policy-development and principles, primary oral health care:professions complimentary to dentistry (PCD), practice management and administration,

Clinical students are exposed to the provision of preventive and primary oral care services and participate in school and community visits.

ETHICS AND JURISPRUDENCE

Oath of hippocrates, ethical obligation, relationship to patients, structure of health team, relationships between dentists, doctors, administrators, anaesthetists, pharmacists, ancillaries and other members of health team, responsibility of dentist for welfare of patients and their relatives, management of a dental surgery, responsibility to employees, health and safety.

Use of records in dental practice, confidentiality and importance for forensic identification, letter writing-advertising, collection of fees, professional qualification necessary before entering into practice, responsibility for verifying qualifications for employees, right of State to regulate professional practice, registration, prescribing drugs, responsibility in accepting a patient, legal definitions of required skill, malpractice, negligence, insurance and medical

defence societies, necessity for written consent to treatment, procedure for handling complaints from patients.

DEPARTMENT OF RESTORATIVE DENTISTRY

ACADEMIC STAFF OF THE DEPARTMENT

S/N	NAMES OF STAFF	QUALIFICATIONS WITH DATES	RANK/STATUS
1.	Dr. M.A. SEDE	BDS (Benin) 1987 ;M. Health Plan & Mgt (Benin) 1993; FWACS 1998, FICS – 2002	Senior Lecturer/Ag. HOD
2.	Dr. L.O. IBHAWOH	BDS (Benin) 1991; FWACS 1999; MHPM 2001	Lecturer 1
3.	Dr. E.E. EHIKHAMENOR	BDS (Benin) 1988; M.SC Pharmacology (Benin) 1998.	Lecturer 1
4.	Dr. (Mrs.) J.O. OMO	BDS – 2002 Part 1 – 2009	Lecturer 11
5.	Dr. (Mrs.) J. ENABULELE	BDS – 2003, Part 1 – 2009	Lecturer 11

NON-ACADEMIC STAFF OF THE DEPARTMENT

S/N	NAME OF STAFF	QUALIFICATIONS WITH DATES	RANK/STATUS
1.	Mrs. F. MADOJEMU	National Cert. For DSA - 1983 National Cert. For DST - 1993	Asst. Chief Dental Technician
2.	Mrs. O.M. OWIE	Diploma in Dental Tech. - 1982 Higher Cert. in Dental Tech.- 1995	Prin. Dental Technologist

3.	Mr. D.O. UWUBANMWEN	C & G Final Cert. - 1976 LBIST (Dent)-1976	Chief Dental Tech. Contract
4.	Mr. L.I. AGUEBOR	JSCE 1997 NABTEB -2000 WAEC 2003 HND – Dental Tech - 2007	Dental Lab. Technologist II
5.	O.B. OMORUYI (Mrs.)	SSCE – 1998&2002 Dip. In Pub.Adm. 2002 B.Sc - 2006	Higher Executive Officer
6.	Mr. J.E.A. IBOROGU	NECO/SSCE 2003 GCE A/L 2004 NIST (LAPO) 1987 Diploma Science Lab. Tech. – 2001	Laboratory Technology Supervisor
7.	Mrs. Florence .O. ERAMEH	SSCE - 1987/1988 OND - 1991 HND – 1994	Conf. Sec. III

8	Miss. Isiuwa EHIGIAMUSOE	SSCE-2001 OND-2005	Laboratory Supervisor
9.	Mr. S. AIGBOKHAN	SSCE – 1985	Laboratory Attendant
10.	Mrs. O. A. OGHENEGUEKE	Primary Six Leaving Cert. -1985	Laboratory Attendant

COURSE: DESCRIPTION AND CONTENT

Course content

A. COURSE IN CONSERVATIVE DENTISTRY

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| Topics | Lectures and Demonstrations |
| 1. introduction | aetiology & pathology of caries, black; classification, terminology, principles of cavity design and preparation stages of a restoration. |
| 2. Cavity preparation for amalgam | Design of class I & extensions |
| Restoration class I,V | Design of class V |
| 3. Cavity preparation for amalgam | Design of class II cavity |
| Restoration Class II, class III amalgam | |
| Cavity | |
| 4. Lining of cavities- lining material and types used, how, when, why to use them | |
| 5. Dental Amalgam- types, hazards mixing packing, carving, use a matrices and wedges contouring and finishing effects | |
| 6. Dental Amalgam- pin retention for amalgam restorations | |
| 7. Anterior-filling- Design of class III & IV cavities, anterior filling materials-types, use, manipulation, finishing. | |
| 8. Gold Restorations- General principles of cavity design for gold restorations. | |
| 9. Gold Restorations- Direct and indirect technique wax patterns sprucing, investing and casting, finishing of gold restoration | |
| 10. Introduction to reaction of pulp to disease and injury, treatment of injured pulp | |
| 11. Acrylic jacket crowns- Use of acrylic jacket crowns, preparation of crown | |
| 12. Paedodontics- cavity preparation and restorations of deciduous teeth, endodontic procedures in paedodontics. | |
| 13. Local anaesthesia in conservative dentistry | |
| 14. History taking, clinical examination, special investigations and diagnosis, dental charts to record caries and periodontal disease. | |
| 15. Importance of good oral hygiene, simple periodontal procedures such as scale and polishing | |
| 16. Prevention of hazards to patients, dentists and auxiliary staff in the dental surgery from instruments, materials radiation and serum hepatitis. | |

PRACTICALS

Introduction to phantom head dental simulator equipment, maintenance and safety

1. Air-rotors, cooling by water and air spray, burs, , hand instruments, care and sterilization of instruments
2. Cavity preparation
3. Lining of cavity preparation,
4. Pack cavities, use of matrices finish restorations
5. Pack cavities

Complete 2 amalgam restorations with pins, finish all amalgam restorations

Class III and IV cavity preparations and fillings

Class I, II, III, IV and V cavity preparations and fillings

Preparation of wax pattern, casting preparation for gold inlays

Root canal preparations and filling

Preparation and fabrication of A.J.C

EDODONTICS

Course Content

1. Reasons for pulp disease
2. Pulp capping, pulpotomy, pulp mummification, pulpectomy and root canal treatment
3. Diagnosis and treatment of acute cases of pulp disease
4. Anatomy of the pulp cavity as applied to edodontics
5. Sterilization of root canal instruments
6. Bacteriology of root canal, drugs used in edodontics
7. Biomechanical preparation and root filling, bleaching discoloured teeth
8. Surgical edodontics and prognosis of root canal treatment, criteria of success of root canal treatment

ADVANCED OPERATIVE DENTAL SURGERY

Course Content

1. Crowns-general consideration
2. Anterior jacket crowns (AJC)
3. Post-retained crowns
4. Impresiion taking and dies

5. Replacement of missing teeth
6. Assessment of cases for bridge work
7. Bridge retainers
8. Pontics
9. Clinical procedures in bridge work
10. Specific design for the replacement of individual teeth

PRACTICALS

1. Gold inlays by direct technique
2. Acrylic and porcelain jacket crowns
3. Cast post and core
4. AJC on pre-fabricated post and core
5. Fixed-fixed bridge on plastic teeth mounted on plastic and prosthetics

SCIENCE OF DENTAL MATERIALS

1. Principles of selection of dental materials-biological, chemical, physical, mechanical and other properties
2. Dental cements and lining materials
3. Anterior restorative materials
4. Amalgam
5. Impression materials
6. Polymeric dentures base materials
7. Tissue conditioners
8. Dental porcelain and other crown and bridge materials
9. Alloys denture casting alloys
10. Partial denture casting alloys
11. Model and die materials

Waxes and baseplate materials

Investment materials

Seminar on impression materials

Lecture-principles of casting and faults in casting

Seminar-polymeric denture base materials

Seminar-tissue conditioners

Seminar-principles of selection of dental materials

Revision

Seminar-Anterior restorative materials

600 LEVEL
RES 610-OCCLUSION
(LECTURE/CLINICS) CREDIT: 1

Review of functional neuroanatomy and physiology of the masticatory system and the functional anatomy and biomechanics of the masticatory system, causes of functional disturbances in the masticatory system, signs, symptoms, history, examination and diagnosis of temporo-mandibular disorders.

Role of occlusal appliance therapy and treatment sequencing in temporo-mandibular joint disorders, occlusal therapy: considerations, use of articulators in occlusal therapy, elective grinding and restorative considerations in occlusal therapy.

**RES 611- CLINICAL REMOVEABLE PROSTHODONTICS AND PROSTHODONTIC IMPLANTS-
CREDIT : 1**

PROSTHETHICS TECHNIQUES

Applied anatomy of the oral and facial tissues in relation to dentistry

Mucosa, bony ridge, muscle, tongue, TMJ

Examination of patients: History taking, special investigations, study casts, impressions: trays, primary impressions, working impressions

Different techniques

Surveying

Articulators: different types and their limitations, simple hinge, average fre plane, fully adjustable, effects of tooth loss

Classifications of partial dentures: saddle, rests, direct retainers, indirect retainers, connectors, principles of partial denture design

Design of complete dentures

Bite registration for complete and partial dentures, face down

Principles of tooth selection: teeth for dentures, types and selections. Arrangement of teeth to achieve stability of dentures

RES 612- CONSERVATIVE AND ANAESTHETIC DENTISTRY

(LECTURES AND CLINICALS) CREDIT: 2

Various tooth bleaching techniques including vital and non- vital (walking bleaching), Acrylic and “in-office” techniques, veneers-laminate, composite and ceramic. Complex restorations: class II mesio-occlusal, disto-occlusal and meso-occluso-distal gMOD in-lays, ceramic in-lays and indirect composites.

RES 613- CLINICAL FIXED PROSTHODONTICS AND IMPLANTOLOGY- CREDIT: 1

Various types and design of bridges, materials for temporary and permanent bridges, resin-retained bridges, implant retained bridges, types of implant, implant “bed” surgeries, superstructure fabrication and design in implantology.

RES 614 SPECIAL PROSTHETIC APPLIANCES-LECTURE AND LABORATORY- CREDIT: 1

Obturator, materials, designs, when, how, technique of design

RES 615- CONSERVATIVE SEMINAR-CREDIT: 1

Mandatory seminars on all topics in the scheme

SECOND SEMESTER

RES 621 ADVANCED CLINICAL ENDODONTICS

Root canal treatment in mandibular and maxillary premolars and molars

Management of root resorption and root perforations, perio-endodontic treatment

Endodontic emergencies

Surgical endodontics including trephination, apical root resection, hemisection, root amputation, re-implantation, diodontic implants and post-endodontic restorations.

RES 622- PROSTHODONTICS CLINICS, CREDIT: 2

Clinical prosthodontic techniques, sequencing of prosthodontic treatment. Follow-up including

ADVANCED PROSTHETICS

Personality of the patient

Anatomical and physiological variations

Factors influencing the prognosis of complete denture treatment

Management of the elderly patients

Pre-prothetics preparation of the mouth

Instructions of patients receiving new dentures

Patients complaints about dentures

Pathological changes in oral tissues caused by denture

Immediate dentures

RES 623- CONSERVATIVE CLINICS, CREDIT : 2

Clinical management of conservation cases, clinical use of jacket and full venner crowns, post crowns, gold inlays impressions by direct techniques.

RES624- ADVANCED OPERATIVE DENTISTRY-LECTURE AND LABORATORY-CREDIT: 2

Post-retained crown fabrication, laboratory fabrication of temporary bridges

Fabrication of bridges and other appliances, dies

Gold inlay by direct technique, AJC on pre-fabricated, post and core

Fixed-bridges on plastic teeth mounted on plastics

Inlay casting in “student’s alloy”, fitting and finishing

Obturator: prosthetic treatment of cleft palate, use of soft velum and hollow bulb obturator

Overdentures, occlural rehabilitation

Surgical splints-uses in treatment of fractures jaws and periodontal diseases, method of construction

Implant dentures: subperiosteal, endosseous

Specific aids for retention and stabilization

Springs, microwaves and mucosal inserts

Special partial dentures-two part dentures

-hinged flanged dentures

-disjunct dentures

PRE-CLINICAL OPERATIVE TECHNIQUE COURSE (PHANTOM HEAD COURSE)

Introduction to phantom head equipment, aerators, airmotors, water and air spray. Hand instruments, different burs, elementary maintenance of equipment, care and sterilization of equipment, aetiology and pathology of dental caries, reaction of dental pulp to injury and disease, black's classification of cavities and descriptive terminology, principles of cavity preparation for both amalgam and gold restorations, use of slow and high speed cutting instruments and burs, cooling, effect of cavity preparation on the pulp.

Preparation, lining and filling of cavities for amalgam restorations, mixing zinc phosphate and other cements, mixing amalgams, packing amalgam, finishing amalgam, use of matrix holders, matrix bands and wedges, uses of pins to aid retention, class I, class V, class II M.O.D and pin retained amalgam restorations in permanent teeth.

Preparation, lining and filling of cavities for tooth-coloured restorations in anterior teeth, using silicates and resins, class III, class IV, class V and pin retained cavities/linings and fillings in anterior permanent teeth.

Manipulation of silicate and resin filling materials, modification of above techniques required to restore deciduous teeth, (disking) of deciduous teeth, use of cap crowns, use of dressings, temporary fillings, temporary crowns, management of diseased or traumatized dental pulp, direct and indirect pulp-capping, pulpotomy, pulpectomy, elementary root canal therapy in single rooted teeth.

Techniques for testing vitality of teeth, class II inlay cavity, wax pattern by direct techniques, inlay casting in "student alloy", fitting and finishing, patient management, saliva control, use of rubberdam, taking dental and medical history, dental charts to record caries and periodontal disease, keeping patients' records, local anaesthesia in conservative dentistry, importance of good oral hygiene.

Avoiding danger to patients, dentist and ancillary staff in the dental surgery from instruments, materials, x-rays, preparation for acrylic jacket crown for upper incisor tooth, impression taking with elastomeric materials, use of copper ring and greenstick impression material.

DENTAL MATERIALS

1. Introduction to materials used in dentistry

Mechanical, physical, chemical and biological properties. Bonding, crosslinking, polymers, adhesion, interface reactions, alloys, ceramics, glasses, plastics, calcification, acid etching

2. Lining materials and cements

Zinc oxide and eugenol, zinc phosphate, ethoxybenzoic, acid cement, copper ionomer cement, fissure sealants, pulpal reaction to linings.

3. Dental amalgam

Composition, zinc oxide, mercury, silver, tin, copper, alloys, proportions, phases, manufacture, particle size, lathe cut, spherical, dispersion type, amalgam manipulation, proportions, mixing, consideration, mercury-amalgam reaction, properties, setting, changes, strength, corrosion, tarnish, toxicity, finishing

4. Tooth coloured filling materials

Requirements, handling, dimensional stability, appearance, properties, biological compatibility, silicate cements, glass ionomer cement (ASPA), composite filling materials, acrylic resin, BIS-GMA composites, fillers, activation by ultra-violet light, acid etch techniques.

5. Model and die materials

Non-elastic, plastic of paris, composition, zinc oxide and eugenol, waxes, elastic, reversible and irreversible hydrocolloid, synthetic elastomers, silicones, polysulphides, polyethers and their applications in conservative and prosthetic dentistry

6. Model and die materials

Desireable properties, waxes, dental plaster, dental stones, die stones, electroplating with copper or silver, graphite, alternative die materials, acrylic, epoxy and polyester resins, ceramics, cements, amalgam, low melting point alloys, inlay wax, sheet casting wax, sticky wax, modeling wax, baseplate materials.

7. Casting alloys

Requirements, gold alloys, composition, proportion of silver, copper, platinum, palladium, zinc, types I, II, III, IV, aesthetics, corrosion, compatibility, cost bonding to

porcelain, solders, base metal casting alloys, nickel, chromium, “students alloy”, cohesive gold

8. Porcelain and bonded porcelain

Types, composition, glazes, manipulation, properties, aluminous porcelain, special bonding alloys, materials for temporary crowns and bridges, acrylics, epamine resin, polycarbonates.

9. Alloys for denture construction

Cobalt-chromium, properties, casting techniques, investment materials, gypsum-bonded, silica-bonded, phosphate-bonded, investment of wax patterns, lost wax technique, cleaning and finishing castings, soldering, casting defects, stainless steel.

10. Denture base resins

Requirements and properties, acrylic resins, methylmethacrylate, heat cures and cold resin, flasking, finishing, faults, denture repair, rebating, relining, soft lining materials and tissue conditioners, alternative denture bases, vulcanite, rubber, polycarbonate, artificial teeth, denture cleaners.

11. Materials for root canal therapy

Sterilization of canal, performed root canal fillings, gutter percha, silver pints, root canal sealers, mummifying pastes, chelating agents.

12. Materials in preventive dentistry and orthodontics

Topical fluorides, types, effectiveness, tissues sealants, orthodontic resins, wires, elastic, brackets, bands and screws, adhesives

13. Materials in oral surgery and periodontology

Implants used to retain denture, teeth or prosthetic appliances, materials used to replace lost tissues and stabilize fractured jaws, tissue response to these, extraction wound dressings, periodontal dressings.

COMPULSORY BASIC INSTRUMENTS FOR CLINICAL STUDENTS

Below is the list of instruments for students undergoing training in the School of Dentistry

S/NO.	ITEM	QTY
1.	Mouth mirror	2
2.	Dental probes	2
3.	College tweezers	2
4.	Turbine head (ultra speed) hand piece	1
5.	Medium/slow speed hand piece	1
6.	Condenser.plugger*small *large	1 each
7.	Excavator small & large	1 each
8.	Ball burnisher	1
9.	Tofflemire matrix retainer	1
10.	Ward's amalgam carver	1
11.	Amalgam carrier	1
12.	Burs – Diamond flat fissure bur Tapering fissure crown bur Diamond wheel bur Inverted cone bur Round bur Tungsten carbide: flat fissure bur Inverted cone bur	5 2 1 4 3 3 3
13.	Operating goggles	1
14.	Complete set of upper & lower phantom head teeth (frasco)	1
15.	Complete set of upper & lower denture teeth	1
16.	Modeling wax	1
17.	Le cron carver/war knife	1 each
18.	Hand held files 15-40, 45-80	2 each

NOTE: - ALL DENTAL STUDENTS ARE EXPECTED TO HAVE PERSONAL LAPTOPS AS FROM 300 LEVEL. THIS IS MANDATORY.