

COLLEGE OF HEALTH SCIENCES

**BENUE STATE UNIVERSITY
MAKURDI, NIGERIA**



Prospectus
2015 – 2017

**COLLEGE OF HEALTH SCIENCES
BENUE STATE UNIVERSITY
MAKURDI, NIGERIA**

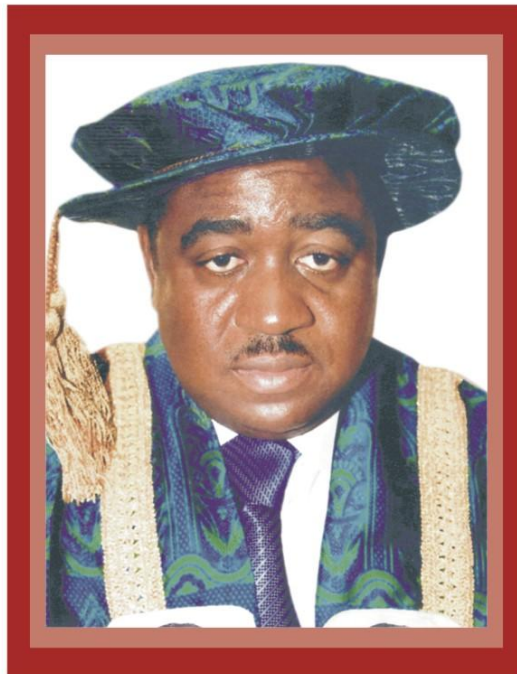
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PROSPECTUS
2015 – 2017

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VISITOR
HIS EXCELLENCY
RT. HON. DR. GABRIEL T. SUSWAM
Executive Governor, Benue State



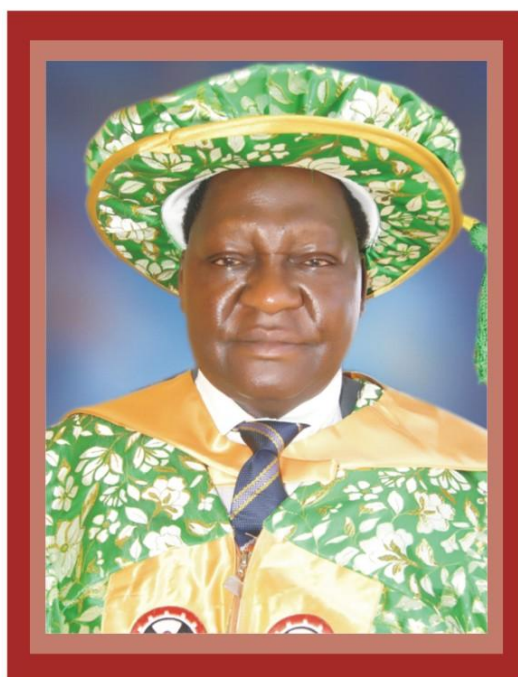
HON. CHANCELLOR
HRH JUSTICE (DR) LAWAL HASSAN GUMMI (Rtd), OFR,
Sarkin Mafara Gummi



PROFESSOR ODE OJOWU, OFR.
Pro-Chancellor & Chairman of Governing Council.



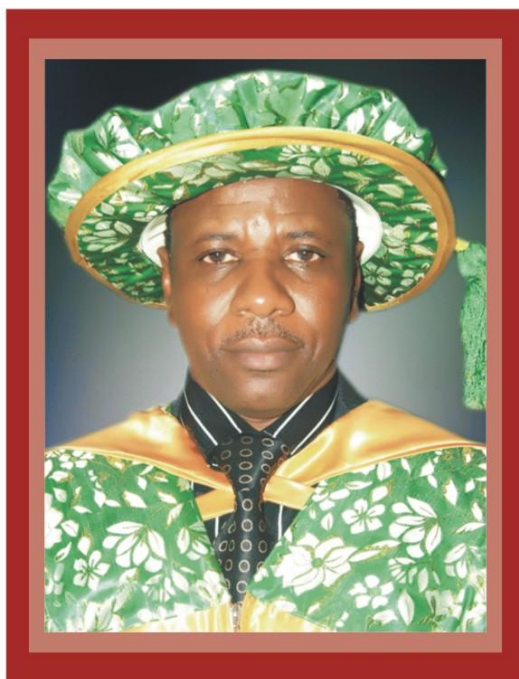
PROFESSOR CHARITY ASHIMEM ANGYA, OON, FSONTA
B.A (Jos), M. A., Ph.D (Ibadan)
Vice-Chancellor & Chairman of Senate,
Chairman Court of Governors of the College of Health Sciences.



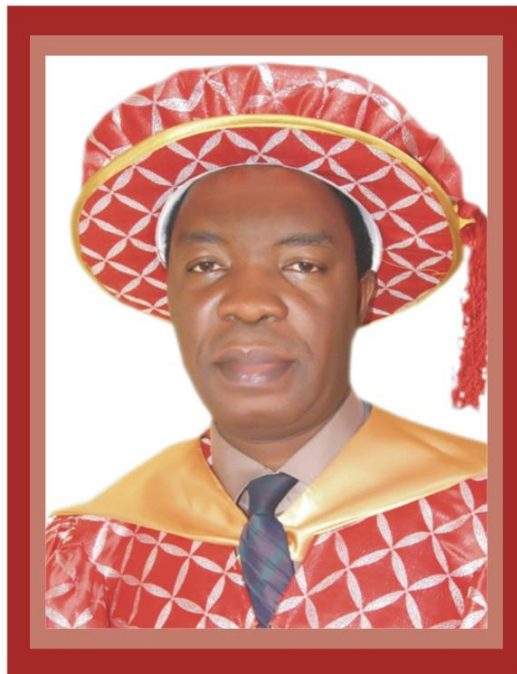
PROFESSOR JULIUS BEGHA ASHIKO

B.A, MA (ABU); D.Phil (Sussex, England)

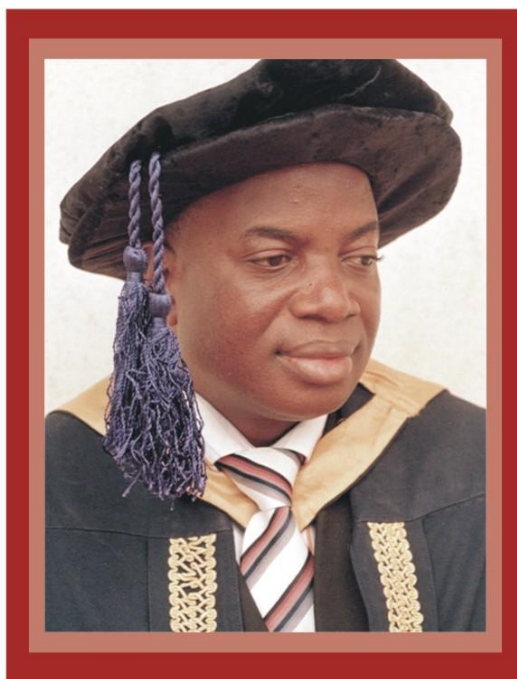
Deputy Vice-Chancellor (Administration)



PROFESSOR JOEL O. ERIBA
B.Sc. (Ed), Ilorin, M.Ed, Ph.D (Jos)FLRN,MNAPE,FIHIR
Deputy Vice-Chancellor (Academic).



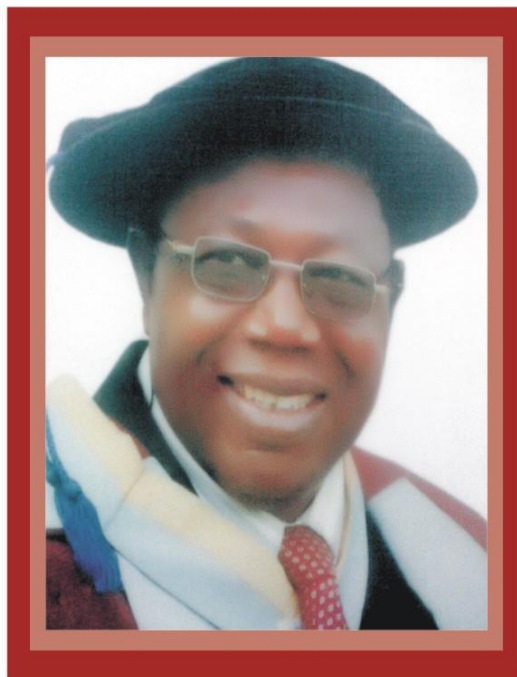
PROFESSOR SIMEON ADELANI ADEBISI, MB.BS, FMC path
Provost
College of Health Sciences
Benue State University, Makurdi



DR. TIMOTHY IGBAKULA UTILE
B.Sc. (ABU), ADPM, M.Sc., Ph.D (BSU)
Registrar of the University.



MR. AÔNDOAKAA KWAGHFAN
B.Sc. (ABU), MBA ACCTG (UNN), ACA
Bursar of the University



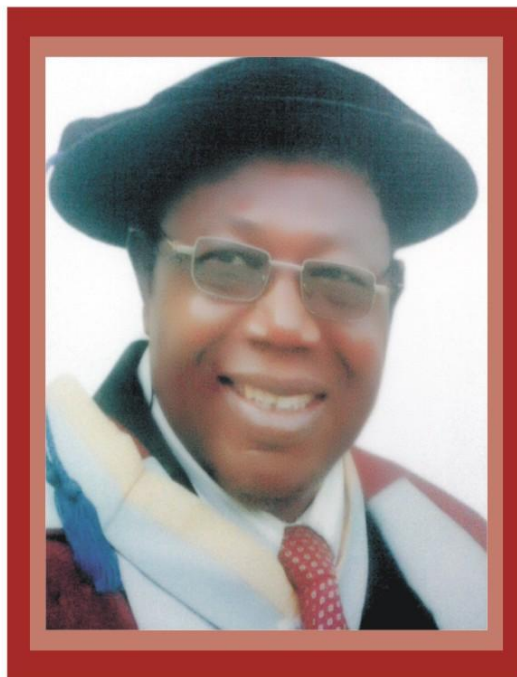
PROFESSOR JOHN ODO IBU

B.Sc Physiology (1st Class Hons.) ABU; MBBS (ABU); Ph.D (Nottingham UK);
MRSH (UK); FRSMed (UK); Adv. P.G Cert. Gastroent.(London); FRSH (UK);
FICA (New York); F. Memb.New York Acad. Sc. (NY).

Dean, Faculty of Basic and Allied Medical Sciences (BAMS)



MR. AÔNDOAKAA KWAGHFAN
B.Sc. (ABU), MBA ACCTG (UNN), ACA
Bursar of the University



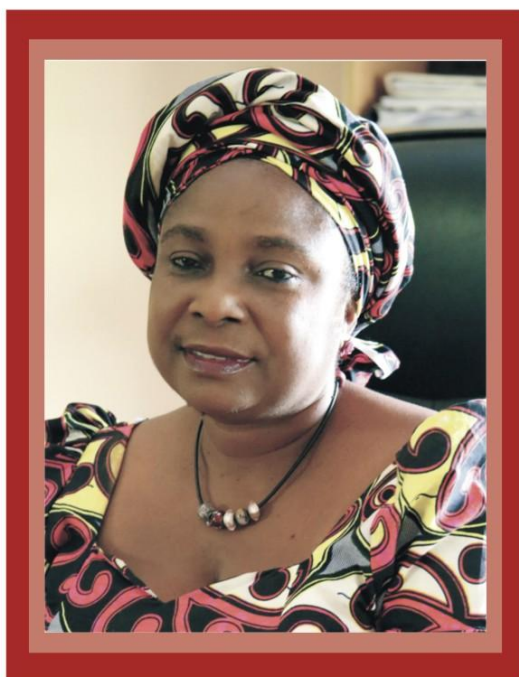
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Dean, Faculty of Basic and Allied Medical Sciences (BAMS)



DR. GODWIN IOR ACHINGE
MBBS, FMCP
Ag. Dean, Faculty of Clinical Sciences.



MRS. CATHERINE TERLUMUN BUR
NCE, B.Sc.Ed, ADPM, M.Sc
Deputy Registrar/College Secretary.



MRS. M'OVUL-KONDOUN, SHIVA RAE
Bsc, MBA, CPA, ACMA, CAN
Deputy Bursar/Finance Controller.

Principal Officers of the College

Provost.

Professor Simeon Adelani Adebisi.
MB.BS, FMCPath.
Professor of Chemical Pathology

Dean, Faculty of Basic & Allied Medical Sciences

Professor John O. Ibu
B.Sc Physiology (1st Class Hons.)ABU; MBBS (ABU); Ph.D (Nottingham UK);
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College Secretary

Mrs. Catherine Terlumun Bur
NCE, B.Sc.Ed, ADPM, M.Sc

Finance Controller.

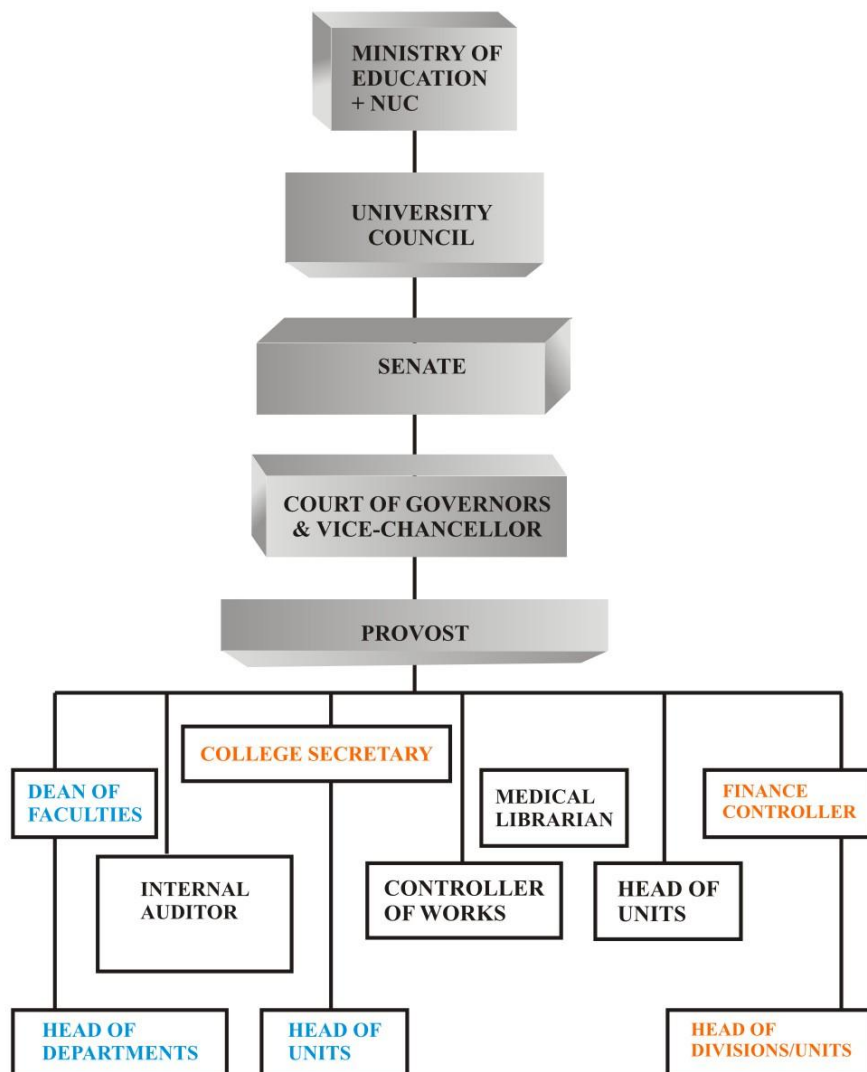
Mrs. M'ovul-Kondoun, Shiva Rae.
B.Sc, MBA, CPA, ACMA, CNA

College Medical Librarian

Mrs Rebecca Ape, Ph.D
BLIS, MLIS, Ph.D



COLLEGE ORGANOGRAM



HISTORICAL BACKGROUND

Introduction

The earliest idea to set up a medical school was mooted by **Reverend Father Orshio Adasu** when he became Governor of Benue State in 1992. He called on some academics of Benue State origin to advise the government about setting up a University and Dr. Shima K. Gyoh was in the subcommittee to advise on setting up a Faculty of Medicine to train doctors. It was an enormous undertaking in a State with hardly any income of its own; a State heavily reliant on the allocations from the Federal Government. Although Reverend Father O. Adasu succeeded in setting up the University, nothing was heard of a medical school until the idea was revived by **Governor George Akume** in 1998. He got a Jos-based Architect, John Ameh to produce the preliminary drawings of the “Faculty of Medicine”. Governor Akume took Dr. Shima K. Gyoh and the architect one afternoon to the present site on which the College stands. The College edifice was designed by **Architect John Ameh**, but for some unrecorded reason another architect supervised the completion of the construction. After all these preliminary activities, the Governor got **Professor Charles Vajime**, the pioneer Vice-Chancellor of Benue State University (BSU) to set up a Steering Committee to advise the University on establishing a Faculty of Medicine.

The Steering Committee

The Steering Committee for the Establishment of the Faculty of Medicine for Benue State University was inaugurated on Wednesday 27th October 1999 with the following terms of reference:

- (a) Work out the modalities for the establishment of a Faculty of Medicine for BSU.
- (b) Ascertain the existing facilities in the University and work out a strategy as well as the financial requirements for the take-off of the Faculty.
- (c) Make recommendations on the commencement of the Faculty.
- (d) Examine any other matter(s) arising from or incidental to any of foregoing terms of reference and make recommendations.

Membership was as follows:

1.	Dr. Shima K. Gyoh	WHO Consultant	Chairman
2.	Dr. Pius Ochefu	Private Practitioner	Member
3.	Dr. Ameh Idoko	Private Practitioner	Member
4.	Dr. Joshua Adagba	Private Practitioner	Member
5.	Dr. Nelson Bur	Private Practitioner	Member
6.	Prof. Abraham. O. Malu	Jos University	Member
7.	Dr. Innocent Ujah	Jos University	Member
8.	Dr. Terna Yawe	FMC Makurdi	Member
9.	Prof. David Ker	BSU	Member
10.	Prof. J.O.I Ayatse	BSU	Member
11.	William Mozeh, Esq.	Registrar BSU	Secretary

Four months later, the report of the Steering Committee was ready. It had considered the pros and cons of Faculty versus Collegiate system and had decided on College. It had decided that the institution should train all the professionals in health. This would tend to minimise costs and perhaps build bridges between the members of the sub-specialties in health and thus reduce the rivalries and conflicts so common among them. Moreover, Benue State needed Pharmacists, Physiotherapists, Community Health Officers, etc. to run its health services, and it would be ideal to have a College with various arms training most of the professionals in health. It would start with the training of doctors, but the other arms would be added on as resources permitted. The cost implication and detailed proposal of Staff and Equipment were provided in the final report, with the important advice that under no circumstances should the project be started without adequate funds needed to complete it and a warning that poor initial reputation would be exceedingly difficult to subsequently correct.

The Implementation Committee

This Committee was inaugurated on 06 April 2001. It had very wide terms of reference.

1. Implement in all its ramifications as circumstances permit, the report and recommendations of the Steering Committee for the establishment of the Faculty.
2. Identify suitable core staff and make recommendations for their recruitment.
3. Monitor closely the development of the site (Government Secondary School) to meet the needs of the new faculty.
4. Identify and supervise the appropriate fitting and furnishing of the Faculty complex in tune with the needs of a Faculty of Medicine.
5. Oversee the equipping of the laboratories and lecture halls for the Faculty.
6. Oversee the upgrading of the Faculty of Science to the standard or level recommended by the Steering Committee.
7. Obtain the permission of the Federal Government for the use of the Federal Medical Centre, Makurdi as the temporary Teaching Hospital.
8. Explore the satellite hospitals in Gboko, Otukpo and Katsina-Ala to be used as Temporary Teaching Hospital Complex and identify relevant areas of improvement.
9. Recommend to the Vice Chancellor as appropriate any desirable review of the recommendations of the Steering Committee.
10. Evaluate the level of implementation of the report and recommend to the Vice-Chancellor the appropriate date for commencement of the programmes.

Membership was as follows:

1. Dr. Shima K. Gyoh	WHO Consultant (Medicine)	Chairman
2. Prof. Abraham O. Malu	University of Jos (Medicine)	Member
3. Prof. Innocent O Ujah	University of Jos (Medicine)	Member
4. Prof. E.C. Agishi	BSU (Science)	Member
5. Prof. G.A. Adoga	University of Jos (Science)	Member
6. Prof. J.O.I Ayatse	BSU (Science)	Member
7. Prof. S.I Abaa	BSU (Science)	Member
8. Prof. M. A. Araoye	Uni-Ilorin	Member
9. William Mozeh, Esq.	Registrar, BSU	Secretary

It should be noted here that the University Senate accepted the setting up of a College rather than Faculty, and the subsequent use of the word “Faculty” in the terms of reference and any other document connected with the College was regarded as a mistake.

These wide terms of reference were purely theoretical. The Implementation Committee was not empowered to do anything. As a committee, it did not

participate in the supervision of the design and construction of the structures, or in the choice of equipment. The Implementation Committee interviewed and recommended the appointment of a large number of staff, but none was appointed two years after the exercise. The Committee often went to the Vice Chancellor with complaints of its being side-lined by lack of empowerment to implement its terms of reference. In response, the Vice Chancellor would plead that he too was not better informed.

A team consisting of the Vice Chancellor of BSU, (by this time Professor David I. Ker), the chairman of Governing Council, Professor Ochapa Onazi, the Chairman of the Implementation Committee Dr. Shima Gyoh, and an investment expert Mr. Stephen Amase went on a tour of some medical institutions in the USA in August 2001 to determine which school might be linked with the new College to assist it take off and possibly look for external funding. The team visited the following institutions:

1. The University of Massachusetts, Boston
2. Simmons Graduates School of Health Studies
3. Boston School of Medicine
4. Austin Community College
5. University of Texas Medical Branch at Galveston
6. University of Texas Medical School, Houston
7. The Baylor College of Medicine

The Team selected the University of Texas, Galveston Branch as the most suitable and willing institution to work with the new Benue State College of Health Sciences. The Vice Chancellor said he submitted a report to the Visitor, but nothing was further heard of the idea throughout the project.

Admission of Students

The political steps were always miles ahead of the physical realities, and pressure was mounted on the Chairman for the admission of students ahead of the physical development, the most worrying aspects being the Teaching Hospital. The arguments was that the hospital would take three years to construct, by which time

the students would be ready to start clinical training. It was an uncomfortably tight fit, but the political pressure was strong and persuasive. Although the Implementation Committee had no handle on the speed of progress, it reluctantly gave the permission with the following provisions:

1. The establishment of the Preclinical Departments must be implemented immediately.
2. The Teaching Hospital must be started and commissioned before the students finish their preclinical studies.
3. Staff recruitment must be completed ahead of needs.
4. The Provost should be appointed immediately.
5. The Medical Library must be established immediately.
6. The time was right for establishing external linkage if it was still on the cards.
7. A stiff warning was given about the authorities getting only the immediate stage ready without considering other stages ahead. *"It is important to keep the total picture in view,"* stated the letter from the Implementation Committee dated 17 January 2004. *"Failure to get the next stage ready would present the University with scandalous problems".*

In February 2004, the Vice-Chancellor – Professor Ker negotiated with the University of Ilorin for release of Professor Matthew A. Araoye to assist in setting up the College. He assumed duty as “Visiting Professor of Medicine” and was co-opted into membership of the Implementation Committee just after the Chairman, Dr. Gyoh resigned and Professor Malu assumed the chair. The Provost recruited staff and started the College and the Preclinical course. Using his experience of the Collegiate Systems of the Universities of Lagos, Ibadan and Ilorin he produced a draft of the Statute and Regulations of the BSU College of Health Sciences. This was approved by the Implementation Committee and the Senate (July 2004), but its approval was delayed because the Governing Council of the University was dissolved. It took up to 2005 for another to come on board and the controversy about the status of the medical school resurfaced. Professor Akase Paul Sorkaa succeeded Professor Ker as the Vice Chancellor. Although the strong move to establish the College as a Faculty persisted, the Visiting Professor - Araoye

successfully lobbied the Council and the Collegiate status was approved in 2006. Governor George Akume signed the Statute into law in 2007 thereby enabling the appointment of Professor Matthew A. Araoye as the first Provost of the College in 2007.

With the Provost in place, events began to move logically but slowly owing to lack of funds to complete the essential areas. In January 2007, Prof Araoye moved the Staff and Students to occupy the College premises; and in February, the buildings were commissioned by Chief Olusegun Obasanjo, President of the Federal Republic of Nigeria.

This history would be incomplete if the CHS fails to acknowledge the role of BSU Council in the actualisation of the “Collegiate System”. Up till 2008, most of the administrative activities in the College were handled by the University’s central administration at a very slow pace of response. In 2008, the BSU Council was reconstituted with Professor Ode Ojowu as the Pro-Chancellor. Under his leadership, the new Council set in motion to energise the Collegiate System. Accordingly, the Vice-Chancellor, Professor Akase Paul Sorkaa was mandated to inaugurate the Court of Governors (COG) of the College. The membership included:

- | | | |
|-----|--------------------------------|---|
| 1. | Professor Akase Paul Sorkaa | Vice-Chancellor/Chairman. |
| 2. | Professor Abraham O Malu | Chief Medical Director,
BSUTH. |
| 3. | Professor Tony Edoh | Deputy Vice-Chancellor
(Administration). |
| 4. | Professor Tyohdzuah P. Akosu | Deputy Vice-Chancellor
(Academic). |
| 5. | Professor Matthew A. Araoye | Provost, CHS. |
| 6. | Professor Bem Angwe | Representative of Council. |
| 7. | Dr. (Mrs.) Joy Odeligbo Agi | Representative of Council. |
| 8. | Professor Prince E. O. Nwokedi | Dean of Basic & Allied
Medical Sciences. |
| 9. | Professor Margaret O. Araoye | Dean: Clinical Sciences. |
| 10. | Professor Timothy Gyuse | Representative of BSU
Senate. |
| 11. | Professor Shima K. Gyoh | Representative of CHS Staff.
Academic Board. |
| 12. | Dr. E. K. Awambe | Representative, Ministry of |

- | | | |
|-----|----------------------|--|
| 13. | Mrs. Ann Anweh | Education.
Representative, Ministry of
Health. |
| 14. | John O. Idikwu | College Secretary/Secretary. |
| 15. | Celestine T. Saawuan | Financial Controller. |

In Attendance:

Joseph Asema	Senior Assistant Registrar.
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The COG had its inaugural meeting on 3/6/2008.

Up till date, the COG has made the following outstanding achievements for the College:

1. Acquisition of the structures of the CHS, which hitherto had remained under tight grip by the Ganza Construction Company;
2. Financial semi-autonomy whereby the Government of Benue State makes direct allocation of fund to the College for Salaries & Wages and Recurrent & Capital Expenditure;
3. Administrative semi-autonomy in compliance with the NUC directive of 1989 and in consonance with the Statute that established the College.
4. Furnishing of the College Auditorium;
5. Recruitment of both Academic and non-academic staff thereby meeting the accreditation requirements of the Medical and Dental Council of Nigeria.
6. The beginning of attempts to activate the College Sewage system under the expertise of Engr E. A. Adeyemo

The CHS appreciates the immense role of the Pro-Chancellor in this endeavour. Also in the forefront in the emancipation of the College was Bem Angwe, Esq, Professor of Law, University of Jos. He was not only a legal adviser; he also bore the divine torch that guided both the Council and COG on the rights, powers and operations of the College. The last, but not the least is Professor Charity Angya, the fourth VC of BSU and the second Chairman – COG of the College. She took the mantle of leadership of BSU, resolved the teething problems of decentralisation of CHS from the Central Administration and the semi-autonomy of the College. She pursued the problem of ensuring the readiness of the priority areas of the BSUTH.

The Clinical Stage

The biggest challenge facing the CHS then was the hospital where students would start their clinical work once they complete their preclinical programmes. The idea of “farming out” the students to existing Medical Colleges was at first considered; but that was not to be because the College had not yet got its first accreditation from the Medical and Dental Council (A college not yet accredited does not exist and

cannot have students!). By 2008, the College had admitted 5 sets of students, 3 of which had stagnated at 300 level and were awaiting MDCN accreditation and the first Professional MBBS Examination. The College achieved the important milestone in November 2008 of accreditation of the preclinical programme by the MDCN. Gladly, the first set of students sat for their first professional examination in March and the Re-sit Examination in June 2009. Altogether 18 students qualified to proceed to the 400 level Clinical Programme, the battle for survival had not ended; The quest for a BSU Teaching Hospital raged on. The latter had been sited along the southern bank of the Benue River and construction began in 2005 but its progress was unfortunately very slow. The contract was at a stage abandoned during the dispute between the current and the out-gone government, and there was strong lobbying by students to be transferred to other medical schools. This was at a time considered, but nearly all the medical schools had in fact exceeded the numbers permitted by their accreditation, and the MDCN sanctioned them by withdrawing their accreditations. Besides, the number of accumulated students in the CHS was too large for distribution to other colleges.

In August 2008, Governor Gabriel T. Suswam inaugurated the BSUTH Management Board with Professor Abraham Malu as the Chief Medical Director, while the hospital was still under construction. The choice was between completing the new Teaching Hospital and upgrading the Federal Medical Centre and its annex at Apir to act as a temporary Teaching Hospital until the new Hospital was ready. Either option would require a considerable amount of funds and rapid action, as the successive classes of students were presently stagnating into one large class, to the embarrassment of the Provost and his staff.

The above notwithstanding, the MDCN appraised the College structures and lay-out as among the best in Nigeria. In fact, it was common practice for the Technical Committees of new Medical Schools to make “Pilgrimage journeys” to Makurdi with the aim of emulating and learning from the good taste and experience of Benue State. For the College itself, both the staff and students continued to pray for divine

intervention that “things may not fall apart.”The divine torch has started to beckon; Governor Gabriel Suswam,the successor to Governor Akume, resumed the hospital building project his predecessor started. The hospital was commissioned by President Goodluck Ebele Jonathan on March 2012 and has been accredited for training of medical students and house officers.

Shima K. Gyoh,FMCS, FRCS Eng. Professor of Surgery.

Matthew A. Araoye,MD, MACP. Emeritus Professor of Medicine.

EXTRACTS FROM THE LAW ESTABLISHING THE COLLEGE

STATUTE OF THE COLLEGE OF HEALTH SCIENCES, BENUE STATE UNIVERSITY, MAKURDI.

1. *Amendment of College of Health Sciences Statute Preamble-*

IN Exercise of the powers conferred by section 9, 12 and 22 of the Benue State University Law CAP, 15 Laws of Benue state, 2004 and of all other powers enabling in that behalf the **University** hereby amends the College of Health Sciences Statute.

This Statute may be cited as the **College of Health Sciences (Amendment) Statute** and shall be deemed to have come into effect on the 12th day of April, 2013.

3.(1) There shall be a College of Health Sciences of the University (hereinafter called the “College”).

1. The College shall comprise-

1. Faculties
2. College Administration;
3. Finance and Accounts;
4. Internal Audit;
5. Medical Library;
6. Works and maintenance;
7. Service Unit

4. *Section 3 and 4 of the Principal Statute is substituted for a new Section 4*

(1) The functions of the College shall include:

- (a) the provision of courses of study leading to the award of degrees, diplomas, certificates and other University distinctions in the Medical and allied professions as may be prescribed by the Senate;
- (b) the provision of special training courses, whether leading to University distinctions or not, taking into account the requirements of the Ministries of Education and Health in the State;

- (c) the conduct of research with particular reference to the field of medical sciences;
 - (d) organization of conferences, seminars, study groups and other similar activities in the medical sciences.
- 1. The College shall-
 - 1. as respects academic matters, be responsible to the Senate;
 - 2. as respects professional matters, be responsible and subject to the overall control of the Medical and Dental Council of Nigeria;
 - 3. as respects finance matters be self accounting but responsible to the Court of Governors and the Council.
- 5. The College shall have-
 - (1) Faculty of Basic and Allied Medical Sciences with
 - (a) Undergraduate training of MBBS Degree students in the Basic Medical Sciences;
- 1. Undergraduate training of B.Sc Degree students in:
 - 1. B.Sc Nursing and Midwifery
 - 2. BMLS Laboratory Sciences;
 - 3. B.Sc Biomedical engineering;
 - 4. B.Sc Physiotherapy;
 - 5. B.Sc Optometry;
 - 6. B.Sc Medical Imaging
 - 7. B.Sc Biochemistry;
 - 8. B.Sc Anatomy;
 - 9. B.Sc Pharmacology;
 - 10. B.Sc Physiology
 - 11. Undergraduate training in any other degree programme the College may introduce;
 - 12. Post-graduate training for M.Sc, M. Phil., Ph.D., M.D degree in Basic Medical Sciences;
 - 13. Diploma courses in Laboratory Sciences.
- (2) Faculty of Clinical Sciences which shall provide
 - 1. Undergraduate apprenticeship to MBBS level;
 - 2. Undergraduate training in B.Sc Community Health
 - 3. Post graduate training for M.Sc M. Phil, Ph.D., MD, and MS academic degree in the Clinical Sciences;

4. Diploma courses in epidemiology and Community Health
14. The Academic Departments shall be as shown in the Schedule to this Statute.
6. The College Administration shall have the following divisions-
 - (a) Central Administration (Boards and Committees);
 - (b) Catering Division;
 - (c) Establishment Division;
 - (d) Information and Publication;
 - (e) Laundry Division;
 - (f) Planning and Development Division;
 - (g) Security Division; and

Shall be responsible for the provision of administrative support services to staff, students, research and training and Committees of the College.
1. Finance and Accounts Department shall have the following units:
 - (a) *Finance and Treasury Division*
 1. Finance Office
 2. Cash Office Section
 3. Payroll Section
 4. Students Accounts Section
 5. Consultancy, Part time Programmes and Venture Section
 6. Investments Section
 7. Reconciliation
 - (b) Final Accounts Division
 1. General Ledger Section
 2. Final Accounts and Report Production Section
 3. Loans and Advances Section
 4. Insurance Section
 5. Grants
 6. Fixed Assets Register Section
 7. Data processing Section
 - (c) Budget Division
 1. Budget Preparation Section
 2. Expenditure Control Section
 3. Capital Project Section
 4. Procurement Section
 5. Goods/Stores Section
6. The Internal Audit shall comprise-

1. Pre-payment unit;
2. Post payment unit;
3. Internal control unit and shall be responsible for-
 1. safe guarding the resources of the College by strict adherence to policies and guidelines set out by the Court of Governors of the college.
 2. carrying out a critical and detailed study of the accounting system and procedures in operation, point out errors and make suggestions for improvement where necessary.
 3. sending periodic reports to the management on the activities of the department;
 4. internal control for the prevention and detection of fraud, loss of cash, stores and equipment.
5. The Medical Library shall-
 1. liaise with the University Library with a view to utilizing the Library funds of the University;
 2. acquire medical and other relevant books, journals, monographs and periodicals for undergraduate and post-graduate studies and research;
 3. acquire medical research and information and Communication Technology (ICT) facilities for the College.
6. The Maintenance Unit (Works) shall comprise-
 1. Building and Civil engineering section which shall-
 1. maintain the College buildings, drains, parks and gardens and plumbing works;
 2. maintain residential premises and furniture items;
 3. undertake designed, supervise and construct minor building project and train craftsmen.
 1. Instrumentation Engineering Section shall be responsible for-
 1. Maintenance of generators, plants and equipment of all kinds of the College.
 2. Maintenance of electrical systems refrigerators, air-conditions of the College;
 3. Maintenance of telephones and other telecommunication facilities and equipments.
 1. Mechanical and Electrical section shall be responsible for-
 1. Maintenance of gas, steam, compressed air and cylinders;
 2. Maintenance of all utility and official vehicles of the College.
7. *This Statute may be cited as the College of Health Sciences, Benue State University (Amendment) Statute*
3. *Insertion of new Schedule*

Schedule to Section 5 (3)

- A. Departments of the Faculty of Basic & Allied Medical Sciences:
1. Anatomy
 2. Biochemistry
 3. Chemical Pathology
 4. Haematology
 5. Medical records
 6. Microbiology & Parasitology
 7. Nursing
 8. Pathology
 9. Pharmacology
 10. Physiology
 11. Physiotherapy.
- B. Departments of the Faculty of Clinical Sciences:
1. Anaesthesia
 2. Epidemiology & Community Health
 3. Medicine
 4. Obstetrics & Gynaecology (Ob/Gyn)
 5. Ophthalmology
 6. Paediatrics
 7. Psychiatry
 8. Radiology
 9. Surgery
- C. Faculty of Pharmaceutical Sciences

THE COLLEGE OF HEALTH SCIENCES REGULATIONS

1. *Amendment of College of Health Sciences Regulations Preamble*
In exercise of the powers conferred by section 9 (4), 22 of the University Law, Cap. 15 Laws of Benue State, 2004, and of all other powers enabling in that behalf the University hereby amends the College of Health Sciences Regulations as follows:
2.
 - (1) There shall be a Provost of the College who shall be the Chief Executive Officer and be responsible to the Vice-Chancellor for the effective coordination and performance of the day to day administration of the College.
 - (2) The Provost shall be a Professor with a basic medical qualification, the MBBS Degree or its equivalent and a Post graduate fellowship registrable to the Medical and Dental Council of Nigeria (MDCN).
 - (3) An advertisement for the post of a provost shall be made by the Registrar of the University 3months preceding the end of the term of office of the incumbent provost. The advertisement shall be open to internal and external candidates who may wish to apply.
 - (4)
 1. (a) There shall be a Select Committee which shall comprise-
four members from the Court of governors who are not staff of the College;
and
 2. three members who shall be elected by secret ballot at a meeting of the Academic Staff Assembly of the College.
 - (b) The Chairman of the Select Committee shall be appointed by the Court of Governors;
 - (c) The Select Committee shall recommend not more than three(3) candidates to the Court of Governors;
 - (d) The Court shall forward one(1) candidate to the Council for confirmation.

The Provost shall hold office for a single term of five years from the date of his appointment and shall thereafter not be eligible for re-appointment until after five (5) years would have elapsed.

(5) Notwithstanding (4) above, the Provost may be removed from office by the Council upon the recommendation by the Court of Governors for any of the following reasons-

1. insanity'
2. bankruptcy; and
3. conviction for dishonesty, fraud or misappropriation.

(6) In the event of vacancy occurring before the expiration of the tenure of the Provost either by the removal or any other circumstances, an acting Provost shall be appointed by the Court of Governors for a period of three months renewable for another three months only.

(7) A person, while holding the office of the Provost, shall not be Dean of a Faculty or head of Department of the College.

(8) The Provost shall in relation to the University, be a Principal Officer of the University.

(9) A meeting of the Academic Staff Assembly for the election of a Provost shall be held in the month preceding end of the term of office of an incumbent Provost. The Vice-chancellor or his nominee shall preside over such meeting.

(10) The Provost shall preside at all meetings of the Academic Board but in his absence the members present shall elect one of their members to preside at that meeting.

Without prejudice to the foregoing provisions, the responsibilities of the Provost shall be:

1. Statutory membership of Council, Development Committee, Appointment and promotion Committee and Finance and General Purpose Committee of the University.
2. Chairman of all meetings of the Academic Board and Academic Assembly save when the Vice Chancellor or Deputy Vice Chancellor is present, and shall be a member of all the committees and boards appointed by the College.

(c) To exercise general superintendence over academic administration and professional affairs of the College.

(d) To present the College's medical graduates to the College for initiation into the comity of physicians resulting from examinations held in the branches of learning for which responsibility is allocated to the College.

- (e) Membership of the Senate and all committees of the University of which the Vice Chancellor and Deputy Vice Chancellors are statutory members;
3. *Substitute Regulation 2 of the Principal Regulations for new Regulation 3-*
3. (1) The Academic head of a Faculty of the College shall be the DEAN, who shall be a professor elected by the academic staff of the faculty in accordance with the relevant laws relating to such appointment in the University.
- (2) The Dean shall be responsible to the Provost for effective administration of the Faculty.
- (3) The Dean shall preside at all meetings of the Faculty Board and in his absence members present shall elect one of their members to preside at the meeting.
4. *Substitute Regulation 3 of the Principal Regulations for new Regulation 4-*
4. (1) There shall be a **College Secretary** of the status of Deputy Registrar, who shall be under the general control of the **Provost** and shall be responsible for the day to day effective control and administration of the College;
- (2) The College Secretary shall be appointed in the same manner and to such terms and conditions of service as are applicable to persons of the same grade and status in the University or may be assigned from among such persons within the University
- (3) The College Secretary shall, by virtue of that office, be the Secretary to the Court of Governors, the Academic Board and the Academic Staff Assembly of the College;
- (4) The College Secretary shall maintain the register of the nominal roll of the staff of the College
5. *Re-number Regulation 4 of the Principal Regulations to new Regulation 5*
6. *Substitute Regulation 5 of the Principal Regulations with new Regulation 6-*
6. (1) There shall be a **Finance Controller** of the College who shall be responsible to the Provost for the effective control and administration of the financial affairs of the College;
- (2) The **Finance Controller** shall be of the status of a Deputy Bursar and shall be appointed in the same manner and to such terms and conditions of service as

are applicable to persons of the same grade and status in the University or may be assigned from among such persons within the University.

7. *Insert new Regulation 7-*

7. The **Internal Auditor** shall be of the status of a Deputy Director of Audit and shall be appointed in the same manner and to such terms and conditions of service as are applicable to persons of the same grade and status in the University or may be assigned among such persons within the University.

8. *Re-number Regulation 6 of the Principal Regulations to new Regulation 8*

9. *Re-number Regulation 7 of the Principal Regulations to new Regulation 9 and amend new Regulation 9 (1) & (2) by substituting the words "Head" with "Controller"*

10. *Re-number Regulation 8 of the Principal Regulations to new Regulation 10 and amend new Regulation 10 (d) & (2) by deleting the words "Medical & Dental Council of Nigeria (MDCN)"*

11. *Substitute Regulation 9 of the Principal Regulations with new Regulation 11-*

11. (1) There shall be a **Court of Governors** (hereinafter called the 'Court' of the College which shall perform the under listed functions-

- (a) Control the property and expenditure of the College;
- (b) Be responsible for the submission of financial proposals relating to the College to the Ministry of Education;
- (c) Employ such non-academic staff within the framework of the conditions of service governing the appointment of such staff in the University;
- (d) Perform such other functions as may be assigned by the Council.

- (2) The Court shall consist of:

- (a) The Vice-Chancellor as Chairman;
- (b) Deputy Vice-Chancellors;
- (c) The Provost of the College
- (d) The Chief Medical Director
- (e) One representative each from the Ministries of Education and Health
- (f) Two members of Council, not being members of staff of the College
- (g) One member of Senate not being member of staff of the College
- (h) A member of the Staff Academic Board,
- (i) The College secretary who shall be the Secretary of the Court of Governors.
- (j) All the Deans in the College.

- (k) The Finance Controller or the nominee to be in attendance.
- (3) Members of the Court of Governors appointed pursuant to **11** (2)(d) (g) above shall hold office for such period not exceeding four years as may be determined by the Council;
- (4) The quorum of the Court of Governors shall be five persons and shall subject to any directive given by Council, regulate its own procedure;
- (5) For the purpose of effective performance of its functions, the Court may be grouped into the following Committees-
 - (a) Finance and General Purpose Committee (F&GPC)
 - (b) Tenders Committee;
 - (c) Appointments & Promotion Committee (A&PC);
 - (d) Disciplinary Committee (DC).
- 12. *Re-number Regulation 10 of the Principal Regulations to new Regulation 12*
- 13. *Substitute Regulation 11 of the Principal Regulations with new Regulation 13-*
 - 13. (1) There shall be a **Tenders Board** for the College, which shall comprise-
 - 1. The Vice-chancellor as Chairman;
 - 2. The Provost;
 - 3. One representative each of the Ministries of Education and Health;
 - 4. One member of Council who is not a staff of the College;
 - 5. The Finance Controller;
 - 6. The controller of works and maintenance.
 - 7. The College Secretary who shall be the Secretary of the Committee
 - (2) The quorum of the Tenders Board shall be four members;
 - (3) The functions of the Tenders Board shall include-
 - (a) the examination and recommendation to the Court for approvals all tenders for capital projects and supplies for an amount exceeding N5,000,000.00 (five million naira).
 - (b) Examination and approval of tenders for all capital projects and supplies for an amount ranging from N3,000,000.00 (three million naira) – N5,000,000.00 (five million naira) only.

- (4) The Chairman of the Tenders Board may in case of emergency approve, on behalf of the Court tenders not exceeding N5m (five million naira) only.

14. *Substitute Regulation 12 of the Principal Regulations with new Regulation 14-*

14. (1) There shall be **Appointment and Promotions Committee** (hereinafter referred to as **(A&PC)** which shall comprise the following-

- (a) The Vice-Chancellor-Chairman'
- (b) The Chief Medical Director of the University Teaching Hospital (BSUTH);
- (c) Deputy Vice-chancellor (Academic)
 - 1. Provost;
 - 2. Deans in the College;
 - 3. Dean Faculty of Sciences;
 - 4. One representative each of the Faculties in the College not below the rank of Professor;
 - 5. The College Secretary who shall be the Secretary of the Committee;
 - 6. All Heads of relevant departments;
 - 7. Finance Controller

(2) The quorum shall be six members including the Chairman and the Secretary;

(3) Without prejudice to the functions of the University Appointments and Promotions Committee contained in the University Law, the A&PC of the Court shall have power to interview, appoint and promote academic staff members up to the level of Senior Lecturer and its equivalents in the case of non-teaching staff.

(4) The Guidelines and criteria to be used by the A&PC of the Court shall be as approved by Council for the University.

15. *Substitute Regulation 13 of the Principal Regulations with new Regulation 15-*

15. There shall be a **Disciplinary Committee** to be appointed by the Court to process all disciplinary cases for the consideration of the Court.

Membership shall comprise the following:

- 1. Representative of Council as Chairman
- 2. Representative of Ministry of Education
- 3. Representative of the College Academic Board
- 4. Dean of Faculty other than the Dean under whom the staff involved is working.
- 5. College Secretary as Secretary.

16. *Substitute Regulation 14 of the Principal Regulation with new Regulation 16-*

16. (1) There shall be an **Academic Board** of the College, which shall control the academic affairs of the College. The Board shall exercise such powers of Senate as may be delegated to it,

(2) The Board shall comprise the following-

- (a) Provost-Chairman;
- (b) Deans of Faculties of the College;
- (c) Dean, Faculty of Sciences;
- (d) The Professors of the College;
- (e) Head of Departments;
- (f) The Medical Librarian.

17. *Re-number Regulation 15 of the Principal Regulation to new Regulation 17 and amend new Regulation 17(c)(i) by deleting the words “the Provost of the College by Secret ballot”*

18. *Re-number Regulation 16 of the Principal Regulation to new Regulation 18 and amend new Regulation 18(a) by deleting the words “HATTISS” & “Vice-Chancellor”*

19. *Re-number Regulation 17 of the Principal Regulation to new Regulation 19*

20. *Re-number Regulation 18 of the Principal Regulation to new Regulation 20*

21. *Re-number Regulation 19 of the Principal Regulation to new Regulation 21*

22. *Re-number Regulation 20 of the Principal Regulation to new Regulation 22*

23. *Re-number Regulation 21 of the Principal Regulation to new Regulation 23 and amend new Regulation 23 by deleting“(a)(iii)” & “(d)”*

24. *Re-number Regulation 22 of the Principal Regulation to new Regulation 24 and amend new Regulation 24 by deleting“(a)(iii)”*

25. *Substitute Regulation 23 of the Principal Regulation with new Regulation 25-*

25. (1) There shall be a **Staff Development Committee** with the under listed as members-

- (a) Chairman Postgraduate Committee as Chairman;

- (b) Deans in the College;
 - (c) Two representatives of each Faculty of the College;
 - (d) The College Secretary or his nominee shall be the Secretary of the Committee.
- (2) The terms of reference of the Committee shall include:
- (a) To handle all staff matters relating to training of staff of the College
 - (b) To consider other ancillary matters as are essential to the assignment.

GENERAL INFORMATION

ADMISSION REQUIREMENTS

Table I: ADMISSION REQUIREMENTS.

U.T. M. E Subjects.	U.T.M.E Entry Requirements	DIRECT Entry Requirements.
English, Biology, Chemistry, Physics.	1. Credit at GCE 'O Level or Equivalent to include: 1. English Language 2. Biology 3. Chemistry 4. Mathematics 5. Physics. 6. Satisfactory score in the UTME result. The CHS will not accept any score below 200 marks. 7. Inter-University and Inter-Faculty transfers will not be allowed.	1. GCE 'A' Level or its equivalent in Biology (or Zoology), Chemistry and Physics (or Mathematics). 2. O' Level Credit in Biology, Chemistry, Physics, English and Mathematics. 3. Graduates of related disciplines of this or other Universities recognised by the Senate may be considered if such candidates have at least a Second Class upper division in their discipline.

REGISTRATIONPROCEDURE.

1. Registration.

All students are expected to register for the Courses and Examinations they intend to take at the beginning of each session. The approved Forms and further information are available from the College office.

It is mandatory for all students to get acquainted with the “On-Line” Registration that is now in practice in BSU. This requires that each student acquires a “Scratch Card” from the appropriate Bank and then proceed to the Internet for On-Line Registration.

2. The Registry.

The College offices open from 7.30 a.m to 4 p.m. daily from Monday till Friday. General enquiries concerning admission of students should be addressed to:

THE COLLEGE SECRETARY,
COLLEGE OF HEALTH SCIENCES,
BENUE STATE UNIVERSITY,
MAKURDI.
BENUE STATE. NIGERIA.
P.M.B 102343 Makurdi
TELEPHONE:
EMAIL: info@bsuchs.edu.ng

ACCOMMODATION.

Student’s accommodation is provided in the halls of residence in the CHS building in the University. Only the 200–300 Level Medical and 200–400 Level Basic Medical Sciences Students will be housed in the CHS building.

GUIDANCE AND COUNSELLING

The College makes use of Students Advisers to provide guidance and counseling for student’s academic and social needs. Every Class has an adviser while in the Pre-Clinical years and another adviser when he moves to the Clinical Years to ensure proximity and direct relationship. In addition to this formal arrangement, students are encouraged to interact informally with the College staff when necessary.

STUDENTS ADVISERS

Faculty of Basic & Allied Medical Sciences

Subject	Adviser
1. Anatomy	Dr. Kpela Terkura.
2. Biochemistry	Dr. Ochalefu, D.O.
3. Chemical Pathology	Dr. Mbata.
4. Haematology	Dr. Alao, O.O.
5. Microbiology & Parasitology	Dr. Jombo, G.T

6.	Pathology	Dr. Ngbea.
7.	Pharmacology	Dr. Asobie, G.C.
8.	Physiology	Dr. Eru, U.E.

Faculty of Clinical Sciences

Subject	Adviser
1. Anaesthesia	Dr. Isamade.
2. Community Medicine	Dr. Priscila Utoo.
3. Medicine	Dr. Okpara, I.C.
4. Obstetrics & Gynaecology	Dr. Swende.
5. Ophthalmology	Dr. Malu, K.N.
6. Paediatrics	Dr. Ochogah M.
7. Psychiatry	Dr. Agbir, M.T.
8. Radiology	Dr. Mohammed, M.
9. Surgery	Dr. Ogwuche, E.I.

CHS REPRESENTATIVES ON OTHER FACULTY BOARDS

BSU FACULTIES	Reps On BAMS	Reps On Clinical Sc.
1. Arts	Nwadioha, SI	Dr. M. T. Agbir
2. CHS – BAMS	-	Dr. K. N. Malu
3. CHS – Clinical	Myke Mbata	-
4. Education	Arubi, PO	Dr. C. O. Ojabo
5. Law	Kpela, MT	Dr. G. O. Ogbeyi
6. Management Sciences	Ogli, SA	Ojabo, A
7. Science		Dr. A. O. Ojabo
8. Social Sciences	Amali, EOO	Dr. B. T. Utoo
9. Environmental Sciences		Dr. Priscilla Denen Akaa
10. Faculty Exams officer	Dr. Obochi	Dr. O. Audu
11. Staff Development Training	Dr. Ngbea	Dr. W. T. Yongu
12. Research & Ethics Comm.	Dr. E. Oghagbon	Dr. Priscilla Utoo
13. Meru	Dr. Orkuma	Dr. I. C. Elachi
14. Faculty Rep. to Senate	Dr. Ochalefu	Dr. T. P. Mbaave
15. Faculty Rep to A & PC Of Court of Governors	Prof. L Saalu	Dr. B. Eke

THE UNDERGRADUATE CURRICULUM FOR MBBS DEGREE

COLLEGE PHILOSOPHY.

1. **Student-Centered:** The curriculum will be structured to foster and encourage students learning in the most effective way and the Programmes will be student-centered rather than through the traditional didactic teaching. Effective use of educational resources and objectives (Computer, Internet and Online Services) will be made to reflect this by making the students take responsibilities for their own learning. The process will be carefully guided by the teachers in the system.
2. **Problem Solving:** The philosophy of problem solving as a means of effective learning is most suited to Medicine and this will be promoted without prejudice to sound preparation in knowledge of the Basic Medical Sciences.
3. **Integrated Learning:** Basic and Clinical Sciences will be treated as a continuum though the student training and the fundamentals of applied science will be reinforced throughout his course. The student will be encouraged to accept the challenge of science for the understanding of basic concepts as well as of application in his subsequent practice of medicine, thereby laying a solid foundation comparable to those of international standards in modern medicine. Years 2 and 3 will be taught and conducted largely by basic scientists strongly supported by clinicians and Years 4, 5 and 6 clinicians also supported by basic scientists.

NB: We operate timetable for 1st and 2nd semesters separately

Pre-Clinical Timetable:

1ST SEMESTER LECTURE TIMETABLE (200 LEVEL MBBS)

DAYS	08-09AM	09-10AM	10-11AM	11AM-12AM	12AM- 1PM	1-2PM	2-5PM
MONDAY	GST	BIOCHEMISTRY		PHYSIOLOGY		LUNCH BREAK	PHYSIOLOGY PRACTICAL
TUESDAY	GST	PHYSIOLOGY		ANATOMY			ANATOMY PRACTICAL
WEDNESDAY	GST	ANATOMY		BIOCHEMISTRY			UNIVERSITY SPORTS
THURSDAY	GST	PHYSIOLOGY		HISTOLOGY PRACTICAL			BIOCHEMISTRY PRACTICAL
FRIDAY	GST	BIOCHEMISTRY		ANATOMY			INTEGRATED SUBJECTS

2nd SEMESTER LECTURE TIMETABLE (200 LEVEL MBBS)

DAYS	08-09AM	09-10AM	10-11AM	11AM-12AM	12AM - 1PM	1-2PM	2-5PM
MONDAY	GST	PHYSIOLOGY		BIOCHEMISTRY		LUNCH BREAK	ANATOMY PRACTICAL
TUESDAY	GST	ANATOMY		HISTOLOGY PRACTICAL			BIOCHEMISTRY PRACTICAL
WEDNES DAY	GST	PHYSIOLOGY		ANATOMY			UNIVERSITY SPORTS
THURSDAY	GST	BIOCHEMISTRY		ANATOMY			PHYSIOLOGY PRACTICAL

FRIDAY	GST	PHYSIOLOGY	BIOCHEMISTRY		INTEGRATED SUBJECTS
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LECTURE TIMETABLE (300 LEVEL MBBS)

DAYS	8-9 A.M	09-10 A.M	10-11 A.M	11A.M-12 P.M	12-1 PM	1-2 PM	2-3 P.M. 3-4 P.M. 04-05 P.M
MONDAY	GST	BIOCHEMISTRY LHB		ANATOMY LHB		LUNCH BREAK	ANATOMY PACTICAL
TUESDAY	GST	PHYSIOLOGY LHB		BIOCHEMISTRY LHB			BIOCHEMISTRY PRACTICAL
WEDNES- DAY	GST	ANATOMY LHB		PHYSIOLOGY LHB			UNIVERSITY SPORTS
THURSDAY	GST	PHYSIOLOGY LHB		BIOCHEMISTRY LHB			HISTOLOGY PRACTICAL
FRIDAY	GST	ANATOMY LHB		COMMUNITY MEDICINE			PHYSIOLOGY PRACTICAL

Clinical Time Table

	STUDENTS GROUPS							
Weeks	1	2	3	4	5	6	Total weeks	Date of onset
4	Introduction to clinical clerkship						4	
8	Pharmacology 1 and Pathology 1						12	
8	M1		S1				20	
8	S1		M1				28	
8	Pathology II and Pharmacology II						36	
8	Pathology II and Pharmacology III						44	
2	Revision						46	
2	Part II Professional MBBS Exams (Pathology & Pharmacology)						48	
4	Revision and Resit part II MBBS Exam						52	
8	P1		O&G1				60	
8	O&G1		P1				68	
8	M2		S2				76	
8	S2		M2				84	
8	P2		O&G2				92	
8	O&G2		P2				100	
2	Revision						102	
2	Part III Professional MBBS Exams (O&G Paediatrics)						104	
4	Community Medicine						108	
4	ELECTIVE/Revision and Resit part III MBBS Exam						112	
8	Psychiatry/Dermatology &Infections disease						120	
8	Anaesthesia/Orl/Ophthalmology/Radiology						128	
8	M3		S3		CH		136	
8	CH		M3		S3		144	
8	S3		CH		M3		152	
2	Revision						154	
2	Part IV Professional MBBS Exam (MED, CH, SURGERY)						156	

KEY: M=Medicine, S=Surgery, P=Paediatrics, CH= Community Health, O&G = Obs/Gyn.

1=Junior Posting; 2 –senior Posting; 3 = Final Posting.

* Please observe Christmas Holiday.

DETAILS OF THE CURRICULUM

The Pre-Medical (100 Level) curriculum

1. A programme of courses shall be provided leading to the degree of Bachelor of Medicine and Bachelor of Surgery denoted by the letters MB.BS.
2. The programme shall normally extend over a minimum period of five or six years, depending on student's entry qualification as follows:
 1. Five years for students admitted with three GCE Advanced Level passes (see General Information above).
 2. Six years for students admitted with UTME result. (Also see General Information above).
3. The first year (100 Level) courses shall be called the "Pre- Medical year" Courses.
4. Students admitted for a six-year degree programme shall normally start with the Pre-Medical year, while those admitted for the five-year programme shall start with the 200 Level year.
5. Entry to the 2nd Year for the five-year programme is limited. Therefore, the possession of minimum qualification does not necessarily mean acceptance for the course.

CURRICULUM FOR THE PRE-MEDICAL (100 LEVEL) YEAR

1. Instruction in the Pre-Medical year shall be by courses quantified into credits and scores%.
2. A credit unit shall be a series of fifteen one-hour lectures or tutorial classes, or an equivalent combination of these types of instruction.
3. No course shall carry less than one or more than five credits.
4. Students shall take the following courses as prescribed by the Faculty of Science in Biology, Chemistry, Mathematics, Physics and General Studies (See Table I).
5. Each course shall normally be examined at the end of the Semester in which it is completed.
6. Examination shall range from a minimum of one hour to a maximum of three hours.
7. For each course, there shall be a panel of examiners with the Head of Department as the Chief Examiner. The panel sets and moderates the questions and marks the answer scripts.

8. Each course shall be graded out of 100 in the proportion of 30% for Continuous Assessment and 70% for course Examination.
9. The results of course examinations shall be submitted by the Chief Examiner through the Dean of Science to the Provost CHS.
10. An examiner's meeting shall normally be held at the end of each session to consider the examination result for that session.

Table I: 100 LEVEL PROGRAMME.

1ST SEMESTER.

COURSE CODE	COURSE TITLE	CREDIT UNITS	STATUS
BIO 101	Gen. Biology I	3	C
CHM 101	Gen. Chemistry. I	4	C
MTH 101	Elementary Maths I	3	C
PHY 101	Mechanics	3	C
PHY 103	Electricity & Magnetism	3	C
PHY 105	Physics Lab I	1	C
GST 111	Communication in English I	2	E
GST 113	Nigerian Peoples and Culture	2	E
GST 121	Use of Library, Study Skills & Information Communication Technology (ICT)	2	E

Credit Units (CU) 23

2ND SEMESTER

BIO 102	Gen. Biology II	3	C
CHM 110	Intro to Inorganic Chem	2	C
CHM 120	Intro to Organic Chemistry	2	C
CHM 142	1 st Year Practical Chem	1	C
MTH 102	Elementary Maths II (Calculus)	3	C
PHY 102	Heat and Properties Of matter	3	C
PHY 108	Gen. Physics Lab II	1	C
GST 112	Logic, Philosophy and Human Existence	2	E
GST 122	Communication in English II	1	E
GST 120	Communication in French	1	E
Credit Units (CU)		19	

The subjects have been rated C (Compulsory) and E (Essential). The C group of 4 carries 32 Credit Units while the E group of 6 GST items carries 10 CU. Total = 42 CU.

FACULTY OF BASIC & ALLIED MEDICAL SCIENCES

MBBS CURRICULUM IN ANATOMY

COURSE OUTLAY:

First Semester 13 weeks

COURSE CODE	COURSE TITLE
ANA 201	General Anatomy and Gross anatomy; Upper and Lower limbs
ANA 203	Cell Biology and General Histology
ANA 205	General Embryology/Medical Genetics
Total	

Second Semester 14 weeks

COURSE CODE	COURSE TITLE
ANA 202	Gross anatomy of Thorax, Abdomen, Perineum and Pelvis
ANA 204	Histology of Cardiovascular, Respiratory, Digestive, Immune and Urogenital systems, Skin and its appendages
ANA 206	Embryology of Cardiovascular, Digestive and Respiratory System
ANA 208	Cell and Radiation Biology
Total	

Third Semester 23 weeks

COURSE	COURSE TITLE
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CODE.	
ANA 301	Gross Anatomy of Head and Neck, cranial nerves and autonomic nervous system
ANA 303	Histology of Nervous System, Special Senses, Endocrine glands
ANA 305	Embryology of Urogenital System, Head and Neck, Organs of Special Senses, Endocrines System
Total	

COURSE CONTENT:

MORPHOLOGICAL ANATOMY

Introduction to General Anatomy

1. A brief history of Medicine and Anatomy
2. The development of Human Anatomy particularly in the 20th Century
3. Definition of different branches of Anatomy
4. Descriptive terms Plans
5. Terms of relationship
6. Terms of comparison
7. Attachment of muscles and mechanisms of movement at joints
8. Types of joints
9. Osteology and principles of kinesiology
10. General organization of body systems.

Morphological Anatomy of the Upper Limb

1. The pectoral region
2. Mammary gland
3. Axilla and brachial plexus
4. The back
5. The Deltoid and shoulder region
6. The arm forearm and hand
7. Bones muscles
8. Joints and joint movements
9. Blood vessels
10. Nerves and lymphatics
11. Surface anatomy
12. Applied and radiological anatomy of the upper limb
13. The practical component involves the dissection of the upper limb in a cadaver.

Morphological Anatomy of the Lower Limb

1. The front and medial sides of the thigh
2. Gluteal region
3. Back of the thigh
4. Popliteal fossa leg
5. Dorsum of the foot and sole of the foot
6. Bones, muscles
7. Joints
8. Joint movements and man's posture
9. Blood vessels
10. Nerves and lymphatic;
11. Surface anatomy
12. Applied and radiological anatomy of the lower limb
13. The practical component involves the dissection of the lower limb in a cadaver.

Morphological Anatomy of the Thorax

1. The thoracic cage
2. Lungs and pleurae
3. Trachea
4. Bronchi diaphragm and respiratory movements
5. Mediastinum
6. Heart and large blood vessels
7. Venous and lymphatic drainage of the thorax
8. Surface anatomy
9. Applied and radiological anatomy of the thorax
10. The practical component involves the dissection of the thorax in a cadaver.

Morphological Anatomy of the Abdomen, Pelvis and Perineum

1. The abdominal wall
2. Planes
3. Hernia peritoneal cavity
4. Diaphragm
5. Abdominal viscera
6. Stomach
7. Intestines
8. Liver
9. Pancreas,
10. Spleen
11. Kidneys adrenals
12. Blood vessels
13. Nerves and lymphatics of the abdomen
14. Surface anatomy
15. Applied and radiological anatomy of the abdomen
16. The student will dissect the abdomen

17. The bony pelvis and determination of sex of pelvic bone
18. The pelvic wall
19. Pelvic floor and pelvic peritoneum
20. Male and Female pelvic organs
21. The nerves and blood vessels of the pelvis
22. The male and female perineum, external genitalia
23. Correlation of structure with reproduction and child birth
24. The student will dissect the pelvis and perineum.

Morphological Anatomy of the Head and Neck

1. The scalp
2. Osteology of the skull and cervical vertebrae
3. The Cranium
4. Cranial and orbital cavities
5. Dural sinuses
6. The eye
7. Mouth
8. Tongue
9. Pharynx
10. Nose
11. Paranasal sinuses and larynx
12. Auditory
13. Vestibular and visual apparatus
14. Exocrine and endocrine glands of the head and neck
15. The Neck; Cervical fasciae
16. Superficial and deep structures
17. Muscles
18. Blood vessels
19. Nerves and Lymphatics
20. The student will dissect the head and neck.

Morphological Anatomy of the Nervous System (Neuroanatomy)

1. Definition and classification of the nervous system
2. The spinal cord and spinal nerves
3. The brain stem
4. Medulla oblongata
5. Midbrain
6. Pons
7. The cerebellum
8. The Cerebrum
9. Neurons and other cells fiber tracts and their functional correlations
10. Cranial nerves meninges
11. Vascular supply and cerebrospinal fluid

12. Autonomic Nervous system; Clinical correlation
13. Introduction to lesions and methods of examination of the central nervous system
14. The student will dissect the spinal cord and brain.

DEVELOPMENTAL ANATOMY (EMBRYOLOGY)

General Human Developmental Anatomy

1. Gametogenesis
2. Development of ovarian follicle
3. Ovulation
4. Fertilization
5. Cleavage
6. Formation of the blastocyst and implantation
7. Formation of the primitive streak
8. Notochord
9. Neural tube
10. Germ layers and their derivatives
11. Folding of the embryo
12. Placentation and formation of the umbilical cord
13. Foetal membranes
14. Development of the limbs
15. Developmental anomalies and Clinical syndromes.

Systemic Human Developmental Anatomy I

1. Development of the locomotor, digestive
2. Circulatory, respiratory and reproductive systems
3. Development of the integumentary system
4. Developmental anomalies and clinical syndromes related to these systems.

Systemic Human Developmental Anatomy II

1. Development of the urogenital system
2. Pharynx and pharyngeal derivatives
3. Brain and spinal Cord Organs of Special senses
4. Exocrine and endocrine organs of the head and neck region
5. Developmental anomalies and clinical correlates.

MICROSCOPIC ANATOMY (HISTOLOGY)

Microscopic Anatomy of Basic Tissues

1. Study of structure and functions of the cell

2. Introduction to histological techniques for light microscopy
3. Units of measurement in microscopy
4. General microscopic anatomy of the four basic tissues including special connective tissues such as cartilage
5. Bone blood and lymphoid tissues
6. The course will have a laboratory component.

Systemic Microscopic Anatomy I

1. Microscopic anatomy of glands
2. Organ systems
3. Lymphoid organs
4. Integument system
5. Respiratory system
6. Digestive system and urinary system
7. The course will have a laboratory component.

Systemic Microscopic Anatomy II

1. Microscopic anatomy of the genital system
2. The male and female reproductive system
3. Endocrine system
4. Organs of Special senses and neurohistology
5. The Course will have a laboratory component.

MB.BS CURRICULUM IN BIOCHEMISTRY

COURSE CONTENT:

1ST SEMESTER

BCM 201 Physical biochemistry:

1. Properties of water
2. Ion products of water
3. Ph scale
4. Acidity and alkalinity
5. Ph, ka and Pka.
6. Buffers
7. Henderson–Hasselbalch equation.

Amino Acids:

1. D and L isomers structure
2. Classification, of amino acids
3. Acid-base properties
4. Titration behavior
5. Reactions of amino acids.

Proteins:

1. Characteristics of peptide bond peptides
2. Structure of proteins
3. Primary
4. Secondary
5. Tertiary and quaternary
6. Protein denaturation
7. Determination of protein structure and molecular weight
8. Solution properties of proteins
9. Reactions and functions of proteins
10. Haemoglobin
11. Myoglobin
12. Cytochromes etc.

BCM 203 Carbohydrates:

1. Definition
2. Monosaccharides
3. Oligosaccharide polysaccharides
4. Aldoses & Ketoses
5. Trioses
6. Tetroses
7. pentoses hexoses
8. D and L isomers
9. Epimers of ring structure of pentoses & hexoses
10. Hemiacetal formation & Anomerism
11. Mutarotation
12. Reactions of Monosaccharides and disaccharides

Disaccharides:

1. Maltose
2. Lactose
3. Sucrose
4. Cellobiose.

Polysaccharides:

1. Starch
2. Glycogen
3. Cellulose
4. Chitin
5. Hyaluronic acid
6. Chondroitin and dermatan sulphates
7. Heparin
8. Glycoproteins.

Lipids:

1. Definition
2. Fatty acids
3. Nomenclature

4. Saturated and unsaturated fatty acids geometric isomerism
5. Melting points
6. Autoxidation waves
7. Neutral fats
8. Derivatives of phosphatidic acid
9. Lecithins, cephalins
10. Plasmalogen and cardiolipin–Sphingolipids
11. Ceremides
12. Sphingomyelin
13. Cerebrosides and Gangliosides
14. Terpenes steroids
15. Cholesterol and its derivatives
16. Glycolipids, Lipoproteins
17. Formation of monolayers
18. Micelles and bilayers.

BCM 205 Nucleosides, Nucleotides & acids:

1. Chemistry
2. Structure and function of nitrogenous bases
3. Nucleosides and nucleotides
4. Structure and composition of RNA & DNA isolation and purification of nucleic acids.

Vitamins:

1. Classification of water soluble and lipid soluble vitamins
2. Structures
3. Occurrence (sources) and functions of vitamins.

Enzymes:

1. Classification and nomenclature
2. Modes of action
3. Enzyme-substrate complex formation
4. Induced fit
5. Enzyme kinetics
6. The Michaelis–Menter equation
7. Its assumptions and limitations
8. The Luieweaver-Burk plot measurement of reaction rates
9. Definition of enzyme unit
10. Specific activity and turnover number
11. Enzyme cofactors.
12. Enzyme inhibition
13. Competitive
14. Non-competitive and uncompetitive
15. Allosteric enzymes
16. Enzyme activation
17. Effects of Ph and Temperature.

2ND SEMESTER

BCM 202 The Cell:

1. Prokaryotic Vs eukaryotic cells structures and functions of cell organelles.
2. Subcellular fractionation.

BCM 204 Digestion of Carbohydrates, Proteins and Lipids:

1. Digestion of carbohydrates
2. Proteins and lipids to their precursor units in the gastro intestinal tract.

Metabolism of Carbohydrates:

1. Glycolysis
2. Glycogenesis
3. Glycogenolysis
4. Pentose phosphate pathway
5. Glyconeogenesis
6. Regulation of carbohydrate metabolism
7. Regulation of blood glucose
8. Disorders of carbohydrate metabolism.

Metabolism of lipids:

1. Fatty acid catabolism and biosynthesis
2. Biosynthesis and metabolism of cholesterol
3. Bile acids and prostaglandin
4. Disorders of lipid metabolism.

BCM 206 Metabolism of proteins:

1. Biosynthesis of amino acids via nitrogen “fixation” to ketoacids
2. Biosynthesis of amino acids via transamination reaction
3. Deamination of amino acids
4. The urea cycle metabolism of the carbon skeleton of amino acids.

Citric acid cycle:

1. As the final common pathway for the metabolism of a carbohydrates
2. Lipids and proteins
3. Production of reducing equivalents by the citric acid cycle
4. Elucidation of the pathway showing structures of the intermediates.

Bioenergetics:

1. Concept of free energy
2. Review of the laws of thermodynamics
3. Biological oxidation: the components and sequence of the electron transport chain and oxidative phosphorylation
4. The conformation coupling hypothesis
5. The chemiosmotic hypothesis and chemical coupling hypothesis.

3RD SEMESTER (300)

BCM 301 Metabolism of nucleic Acids:

1. Catabolism of nucleic acids
2. Role of various nucleases in the breakdown of nucleic acids
3. Nucleotides
4. Nucleosides and bases biosynthesis of Purines & Pyrimidines nucleosides
5. Disorders of nucleic acid metabolism.

Hormone Biochemistry:

1. Neurohypophyseal hormones
2. Tropic hormones
3. Adrenal hormone
4. Sex hormones
5. Thyroid hormones
6. Prostaglandins etc.

BCM 303 Biochemistry of Organs and Tissues:

1. Biochemistry of the liver
2. Kidney and brain
3. Composition and chemistry of connective tissues
4. Cartilage
5. Bone
6. Teeth
7. Nervous tissues and the skin
8. The eye and biochemistry of vision.

Nutrition:

1. Introduction
2. Nutritional value of food
3. Decline of the normal nutrition
4. Introduction
5. Nutritional value of foods during storage
6. Preparation and cooking
7. Biochemical assessment of nutritional status—assay of various biochemical parameters in normal nutritional status
8. Protein energy malnutrition & Starvation.

BCM 305 Special Topics in Biochemistry

Neurobiochemistry:

1. Neurotransmitters
2. Synthesis,
3. Ackaging
4. Release and site of action
5. Mechanism of action
6. Cholinergic
7. Adrenergic drug action.

Immunology:

1. Introduction
2. Structure
3. classification and functions of Immunoglobulins
4. Antigen
5. Haptens
6. Types of immunological reactions
7. Complement system humoral & cellular immune response
8. Chemistry and function of the lymphokines.

Carcinogenesis:

1. Oncogenic virus
2. X-rays and carcinogens in malignant transformations
3. Growth regulation and membrane changes in neoplasia

In-born Errors of Metabolism:

1. Biochemical bases and Clinical manifestation.

MBBS CURICULLUM IN CHEMICAL PATHOLOGY AND IMMUNOLOGY

1. CHEMICAL PATHOLOGY

Course Objective

The course comprises mainly three parts:

Introduction to Chemical Pathology at the 400 level. Principles of Chemical Pathology at the 400 level, Clinical application of these principles in confirming provisional clinical diagnosis and deciding therapy of disease states with particular reference to those common in Nigeria at the 500 level.

Instructional Objectives

At the end of the three courses, a student should be able to:

2. Demonstrate knowledge of the bio-chemical basis of disease states with particular reference to those common in Nigeria.
3. Select relevant biochemical tests that will confirm or refute provisional clinical diagnosis of disease states.
4. Interpret apply these results in deciding therapy and follow up of these disease states. Perform simple measurements of constituents of urine, CSF, plasma using simple but reliable methods.

Instructional method

By lectures, tutorial, seminar use of self-instructional packages, participation in practical classes and demonstrations.

Course Content

A: Introduction to Chemical Pathology. Introductory posting at 400 level.

This will consist of 10 hours of lectures, and tutorial and 6 hours of practical classes and demonstration to cover the following areas.

Introduction to mechanisms of disease. The scope, method of separation including used of various anticoagulants blood containers:

1. Collections and preservations of various body fluids
2. Requests for laboratory investigation
3. Reference values and normal distribution
4. Traditional and System International (S.I) Units
5. Quality control.
6. Accuracy and precision
7. Significance of abnormal biochemical constituents of body fluids with emphasis on plasma / serum and cerebrospinal fluids
8. Homeostasis in clinical Chemistry
9. Significance of laboratory results
10. Importance of using side-room laboratories.

1. Principles of Chemical Pathology: Block I Posting at 400 level.

This will consist of 22 hours of lectures and tutorial and 15 hour of practical classes and demonstrations.

The following topics will be covered:

1. Water
2. Sodium Chloride and Potassium Metabolism
3. Concept of water and electrolyte balance
4. Osmometry.

5. Buffer systems in body fluids
6. Concepts of pH, Acidosis
7. Alkalosis
8. Acid-Base balance
9. Normal liver functions and biochemical changes in liver diseases
10. Plasma proteins
11. Electrophoretic separation of plasma protein and changes in disease states.

12. Calcium
13. Magnesium and Phosphate homeostasis and its disorders
14. Iron and haem metabolism including its disorders
15. Biochemical basis of diabetes mellitus
16. Diagnosis
17. Assessment and follow up during therapy
18. Plasma Lipids and lipoprotein disorder.

1. Composition of urine.
2. Basis of glomerular and renal tubular functions test
3. Detection of proteinuria and its significance
4. Biochemical basis of uric acid metabolic disorder
5. Principles of its detection and treatment.

Endocrinology

1. Mechanism regulating hormone secretions.
2. Hypothalamic-Pituitary-Adrenal axis
3. Hypothalamic-Pituitary-Thyroid axis
4. Hypothalamic-Pituitary-Ovarian-Testes axis.

5. Gastrointestinal disorder
6. Basis of gastric

7. Pancreatic and intestinal function tests
8. Biochemical basis of under nutrition
9. Over nutrition
10. Avitaminoses and Hypervitaminosis
11. Plasma enzymes and their uses in diagnoses of clinical conditions
12. Red-cell enzyme defects e.g. G6PD deficiency
13. Biochemistry of the cerebrospinal fluid.

C. Clinical Application of Chemical Pathology: Block II Posting at 500 level.

This will consist of twenty-two hours of lectures, tutorials, interdepartmental seminars and fifteen hours of practical classes and demonstration.

The details are as follows:

1. Biochemical screening in detection of sub-clinical disease states
2. computers and automation in clinical chemistry
3. Biochemical investigation of Mar absorptive and Malnourished states including Kwashiorkor
4. Marasmus
5. Steatorrhoea etc.
6. Clinical significance of lipid disorder
7. Water and electrolyte imbalance and its management
8. Clinical significance and detection of Hypercalcaemia
9. Hypocalcaemia
10. Hypoparathyroidism
11. Hyperparathyroidism
12. Osteomalacia
13. Rickets
14. Osteoporosis
15. Renal calculi.

Clinical Enzymology

16. Hepatic disorder
17. Clinical and biochemical classification and its biochemical investigation.
18. Biochemical investigation of renal dysfunction.
19. Clearance tests
20. Concentrating and diluting tests.
1. Biochemical investigation of carbohydrate metabolism, Glucose tolerance test. Limitations and interpretation.
2. Biochemical investigation of haematological disorder
3. Screening for inborn errors of carbohydrate metabolism.
4. Clinical significance of disorder immunoglobulin production
5. Trace elements in disease
6. Toxicology. Drug assays

7. Biological circadian rhythms and its importance in investigation of disease states.
8. Clinical significance of measurements protein and sugar in CSF.

1. Practical Classes and Demonstrations:

There will be a total of 36 hours of practical classes and demonstration made as follows:

Importance of urine collection and examination. Measurement of specific gravity and osmolality of urine.

1. Identification of reducing and non-reducing sugars in urine include lerine bodies and salicylate.
2. Detection of protein by turbidimetric and colorimetric method.
3. Significance method
4. Significance of proteinuria
5. Identification of haemoglobin products in urine
6. Demonstration of difference between whole blood plasma and serum.
7. Demonstration of basis use of colorimeter and Estimation of simple substance in plasma /serum e.g. Glucose, urea and protein by standard methods. Estimation of protein and sugar in cerebrospinal fluid.
8. Detection of occult blood in stool
9. Demonstration of principles of frame photometry and spectrometry

Assessment

Criteria for assessment will be as follows:

There will be progressive assessment at the end of each of the three postings.

Each progressive assessment will consist of M.C.Q.

Longer answer question jointly examine with other major disciplines of pathology.

The final assessments shall be the prescribed University professional examination which consists of M.C.Q. long answer question.

Practical and Orals.

The weighting should be total of all progressive assessments – 50% and final professional assessments-50%.

The prescribed University examination regulations will apply.

IMMUNOLOGY

Cells and body Defense:

This programme is part of the introductory series given to medical students at the 200 level. The immunology component comprises 4 learning sessions, each session consists not only of didactic lectures but also the practical aspect of the science. Relevant clinical aspect of the science. Relevant clinical examples are frequently made use of. The details of the sessions are as follows:

Session I: The Immune System

At the end of this session, the students should be able to:

1. Narrate the early history of immunology.
2. Understand the concept of immunity and the relationship of an animal to other organisms in its environment.
3. Define an antigen, and an antibody
4. Understand and differentiate between non-specific immunity and specific acquire immunity.

Session II: Humoral Immunity

Objective:

At the end of this session, the students should be able to:

1. Describe the theories of antibody formation, production and structure.
2. Classify immunoglobulin.

Session III: Cell Mediated Immunity

Objective:

At the end of this session, the student should be able to:

1. Understand the concepts of hypersensitivity and cell mediated immunity
2. Differentiate between primary and secondary
3. Classify the concepts of graft versus boost reactions.

Session IV: Vaccination

At the end of this session, the student should be able to understand:

1. The principles of vaccination
2. The uses of antisera
3. The types of vaccines
4. The concept of passive immunity and therapeutic antisera.

THE RESPIRATORY SYSTEM.

In the respiratory system, this dependent has a session with the students on mucosal immunology and the general principles of how the lungs are protected. Emphasizing the role of IgA.

The Blood:

In the programme on blood, the students are taught the function of the blood, the role of small lymphocytes, especially the T. and B. cell types and the role of the thymus in immunity.

The Urogenital System (UGS).

In the UGS the department highlights:

The basic immunological mechanism underlying renal function and dysfunction.

Symposia:

In special symposia of the faculty, especially on cholera. The department deals with species relevant to the discipline.

The GIT and Nutrition:

In the gastrointestinal system and nutrition programme, basic GI and Immunology would be taught. The Department would be fully involved in the planning and teaching of all body system programme in the preclinical years.

Clinical Immunology:

In the clinical years, the immunology course is designed to create opportunity for learning about immunology while maintaining the broad perspective that immunology is an integral part of the wider field of biology and medicine. The students would be acquainted with as many aspects of basic and applied immunology as possible.

At the 200L Cell and Body defense course, the students are taught basic concepts of immunology that enabled them to appreciate the relevance of the subject and its applicability to other disciplines in medicine.

In the clinical years, the students would be taught specific and more detailed concepts in the field of immunology, highlighting its applicability to the clinical discipline and also to diagnostic services. The course then needs to be stressed, especially as an integral course for 2 to 3 years.

Cells of the Blood and Lymphoid Tissues:

1. Origin
2. Lifespan
3. Fate
4. Structure and function of myeloid cells
5. Neutrophils and Basophils.

Elementary introduction to origin lifespan:

6. Fate
7. Structure and function of myeloid cells.

8. T and N cell.
9. Revision of Red cells and platelets.

Reactions to Injury:

1. Homeostasis thrombosis
2. Necrosis
3. Oedema
4. Haemorrhage
5. Shock
6. Molecular reactions to injury
7. Coagulation
8. Histamine
9. Larimin (Complement).

Acute inflammation:

1. The Vascular response to injury.
2. Reactions of leucocytes-adhesion
3. chemotaxis phagocytic bacterial killing.
4. Chorine Inflammation.
5. The mononuclear phagocytic system.
6. Granuloma formation high and lower turnover granulomata.

Tumours:

Introduction to Immunology I:

1. Distribution and function of immune cells.
2. Anatomy of lymphoid system.
3. Central and peripheral lymphoid organ.
4. Thymus, bursa, lymph node, T. and B lymphocytes immunes, response, characteristics (adaptive, specific)
5. Lymphocyte transformation, plasma cells.
6. Introduction to immunology II: Immunochemistry
7. Definition of antigen, Immunogen, haptens, determinant.
8. Antibody introduction to Ig structure and the molecular basis for specificity.
9. Biological activates of antibodies complements, cells-surface during sites.
10. Introduction to Microbiology I: Structure and function of micro organisms, Bacterial, Viruses, Fungi, protozoa.
11. Introduction to Microbiology III: Post-parasite relationships
12. Hosts defense mechanisms
13. Invasive and toxic properties of bacteria.

Practical:

Practical diagnostic immunological techniques will be shown and demonstrated as follows:

1. Collection of serum and plasma.
2. Total and differential while cell counting.
3. Separation of blood leucocytes.
4. Cells motility and viability.
5. Passive agglutination tests.
6. Tanned red test.
7. Ouchterlony gel diffusion test.
8. Skin testing for both immediate and delayed hypersensitivity.
9. Immunofluorescent techniques, immune-electrophoresis, radio-immunodifusion, etc.

CHEMICAL PATHOLOGY LECTURES**General Consideration**

10. Biochemistry and Medicine
11. Biochemical Blood Constituents of Clinical Importance.
12. Chemical and Organic Constituents of Urine.
13. Specimen collection and preservation: Factors that affect. Results.
14. Quality Control: Precision and Accuracy
15. Reference Values in Clinical Chemistry
16. Conventional and SI Units of Expressing Biochemical Values/parameters.
17. URINALYSIS
18. CSF Chemistry and changes in disease
19. Glucose Homeostasis

CARBOHYDRATES

1. Disorders of Carbohydrate Metabolism
2. Other Sugars of Clinical Significance
3. Diabetes Mellitus; Laboratory Diagnosis.
4. Biochemical changes in Diabetic Ketoacidosis (DKA)
5. Renal Function in health & Disease;
 1. Water and Electrolyte Balance
 2. Acid-Base Balance.

RENAL

1. Disorders of Water and Electrolyte metabolism
2. Disorders of Acid-Base Balance.
3. Renal Function Tests: Clearance Tests

PROTEINS

1. Plasma Proteins; Sources and Laboratory Measurements
2. Plasma Protein Changes in Disease
3. The Immunoglobulins I
4. The Immunoglobulins II (Disorders)
5. Other Proteins of Clinical Significance
6. The Complement System.

LIPIDS

1. Plasma Lipids and Lipoproteins
1. Lipid Disorders and Changes in Disease
2. Lipid disorders and cardiovascular Disease

LIVER

1. Functions of the Liver
2. Biochemical Changes in Liver Disease I
3. Biochemical changes in Liver Disease II
4. Bilirubin Metabolism/Clinical Significance
5. Plasma Enzymes of Clinical significance (In Liver, CVS and other diseases)
6. Liver function Tests.

PANCREAS & G.I.T.

1. Pancreatic and Gastrointestinal Function
2. Acute and Chronic Pancreatitis: Biochemical Diagnosis
3. Tests for Malabsorption and Cystic Fibrosis
4. Gastric Analysis

ENDOCRINOLOGY

1. Endocrine organs and their hormones
2. Feedback and other controls of Hormone Secretion.
3. Pituitary Function/Disorders
4. Thyroid Function/Disorders
5. Adrenal Function/Disorders
6. Gonadal Function/Disorders. Basic Reproductive Endocrinology
7. Parathyroid, Calcium and phosphorus metabolism
8. Ectopic endocrine syndromes.

VITAMINS & TRACE ELEMENTS

1. Vitamins and Trace Elements I
2. Vitamins and Trace Elements II
3. Drug/Diet effect on Biochemistry Results
4. Inborn errors of metabolism

BIOCHEMICAL CHANGES IN SPECIAL CONDITIONS

1. Paediatric Chemical Pathology
2. Tumour Markers and their uses in Medical Practice
3. Biochemical changes in Pregnancy
4. Biochemical changes in severe trauma/surgery
5. Biochemical changes in protein – calorie malnutrition
6. Biochemical changes in HIV/AIDS disease complex.

MB.BS CURRICULUM IN HAEMATOLOGY

Objectives:

By the end of the entire Haematology course, the students should be able to demonstrate knowledge of the theoretical principles of Haematology. They should also be able to use practical techniques learnt during the course to perform side-room laboratory haematological tests and should be able to interpret haematological results in relation to patients' clinical condition and manage the simple haematological disorders common in the community.

Procedure:

Courses in Haematology are given along with courses in the other pathological science disciplines during the first and second clinical years. Instruction is by lectures, tutorials and practical sessions demonstrated or undertaken by students themselves. The clinical applications are further mastered in the wards and clinics and at integrated sessions or clinicopathological conferences.

The sources are divisible broadly into four areas, namely:

1. General Haematology
2. Haematology
3. Oncology
4. Immunohaematology (Blood group serology) and Haemostasis

The course content is suitably divided into discussion/lecture topics for complete coverage. For each of the four areas of the course, the introductory pathology is taken in the earlier posting while the systemic topics are taken in later postings.

Details of Course Content

Introductory Posting (10 -12 Weeks at beginning of first clinical year 1)

Discussion/Lecture Topics:

1. Haemopoiesis and its regulation
2. Reference values and indices in and classification of anaemias
3. Definition and classification of Polycythaemia

4. White blood cells, morphology
5. Function and general disturbances
6. Iron metabolism
7. Vitamin B12 and folate metabolism
8. Normal and Abnormal haemoglobin
9. Platelet structure and function
10. Plasma coagulation system
11. Human blood group and their applications.

Class Practicals:

1. Preparation and staining of blood films
2. Microscopic identification of normal blood cells
3. Reporting normal blood film
4. Haemoglobin and PCV determination
5. Red cell count
6. Total white cell count
7. Platelet count
8. ESR determination.

Block Posting:

1st Block posting 8 week at beginning of 2nd clinical year, 2nd block posting 4 -6 weeks at the end of 2nd clinic year.

General Haematology:

1. Iron deficiency and overload
2. Megaloblastic Anaemia
3. Aplastic and dys-erythropoietic anaemias
4. Sideroblastic and other hypoplastic anaemias
5. Classification and general features of haemolytic anaemias
6. Sickle cell diseases
7. Thalassaemia and other haemoglobinopathies
8. Other heredity haemolytic anaemias
9. Acquired haemolytic anaemias
10. Haematology of the spleen
11. Haematological manifestations of systematic diseases, Hepatic, Renal, Malignant and collagen disorders.

Haematological Oncology:

1. Acute leukaemias

2. Chronic leukaemias
3. Non-leukaemias myeloproliferative disorders
4. Hodgkin's Non-Hodgkin's and Burkitt lymphomas & Multiple myeloma.

Blood group Serology:

1. Principles and practices of blood transfusion including cell and serum grouping
2. Cross-matching
3. Direct and indirect combs test
4. Complications and diseases associated with blood transfusion.

Haemostasis:

1. Heredity bleeding disorders
2. Acquired bleeding disorders
3. Purpura thrombocytopenic and others.

Class Practicals

1. Examination of abnormal blood and marrow films
2. Sickling and solubility tests and demonstration of electrophoresis.
3. Cell and serum grouping
4. Direct and indirect combs test
5. Cross-matching of blood whole blood clotting time, bleeding times, Hess's Test Demonstration of PT, TT and PITK

Assessment:

Each posting ends with a progressive assessment and the result of all progressive assessments together constitute 50% of the final examination in accordance with faculty guidelines. The final examination in pathology is as one of the subjects in the part I (Final) MBBS professional examination.

MB.BS CURRICULUM IN MICROBIOLOGY AND PARASITOLOGY

The Department of Microbiology comprises the following units:

1. Bacteriology
2. Virology
3. Parasitology
4. Immunology
5. Mycology

Each unit is to be headed by a consultant with special interest in such area. All non-consultants are to work under the consultants in the Department.

The curriculum consist of the following:

i. Clinical (400L)

Introductory Pathology Posting

1. Introduction to Medical Microbiology and Parasitology
2. Structure and general properties of micro organisms
3. Including bacteria, protozoa
4. Fungi and viruses.
5. General introduction to parasites and parasitism
6. Various tissue responses to parasitic infections
7. Intestinal round worms
1. Sterilization and disinfection
2. Pathogenesis of micro-organisms
3. Host –bacterial interactions
4. Collection
5. Transportation and examination of samples
6. Immunity to infections and immunodeficiency states.

Parasitology topic include:

1. Principles and concepts of Medical Parasitology
2. Larva migrans
3. Filariasis
4. Cysticercosis
5. Dracunculiasis
6. Dibothriocephaliasis
7. Echinococcosis,

Virology topics include:

1. Pathogenesis of viral infections
2. Mutation and gene transfers
3. Basic Gram–negative
4. Bacilli–Enterobacteriaceae
5. E Coli
6. Salmonella
7. Shiggella
8. Proteus
9. Klebsiella
10. Enterobacter
11. Serratia Pseudomonas
12. Bacteroides
13. Haemophilus
14. Brucellosis
15. Chancroid.

- 1. Anaerobic infections:**
 1. Anaerobic cocci
 2. Clostridia and Bacteroides
 3. Toxin-producing bacteria
 4. Diphtheria
 5. Botulism
 6. Tetanus and other clostridial infections (Gas gangrene Cellulitis, Puerperal sepsis) cholera
 7. Mycobacterial diseases
 8. Tuberculosis
 9. Atypical Mycobacterial infection
 10. Leprosy
 11. Listeria infections
 - 12. Chlamydial infections Spirochaetal infections Venereal treponematosi (syphilis) Non -venereal treponematosi (Yaws, Pinta, Bejel) Relapsing fever**
- 13. Fungal infections:**
 1. Candida albicans
 2. Cryptococcus neoformae
 3. Histoplasmosis
 4. Aspergillosis
 5. B Blastomycosis
 6. Paracoccidiomycosis
 7. Coccidiomycosis
 8. Basidiobolus
 9. Mucor
 10. Norcardiosis (Maduromycosis)
 11. Aspergillosis
 12. Rickettsioses
 13. Viral infections
 14. Respiratory (Influenza, common cold, parainfluenza, mycoplasma)
 15. Enteric (Echo, Coxsackie)
 16. Disease with muco-Cutaneous lesions, (Measles, embolla, smallpox, cowpox, chickenpox).
- 17. Viral infections:**
 1. Yellow fever
 2. Human Immunodeficiency Virus (HIV)
 3. Herpes group of virus. Cytomegalovirus
 4. Hepatitis
 5. Viruses
 6. Papilloma Virus Rota viruses
 7. Disease with lymphoid lesions (LGV, Mumps, Infections mononucleosis).

8. Protozoal infections:

1. Amoebiasis
2. Malaria Trypanosomiasis Toxoplasmosis
3. Pneumocystis carinii
4. Helminthic infections
5. Intestinal nematodes (Hookworms, Round worm, Pinworm, Whipworm)
6. Tissue nematodes (Trichinosis Filariasis) Trematodes (Schistosomiasis)
7. Cestodes (Tapeworms)

As shown above, the curriculum in ID I (infection diseases) is very extensive. Much of the curriculum on bacterial infections is covered by medical microbiology during phase I or “introduction to clinical clerkship” and by bedside teaching.

Other courses in phase 3 include:

1. Nosocomial infections
2. Septic shock
3. Malaria
4. Infective diarrhoeas
5. Meningitis
6. Typhoid fever
7. Tetanus
8. Influenza.

400 Level MCB

INTRODUCTION TO MICROBIOLOGY (MCB)

S/NO	COURSE OUTLINE
1	Introduction to Medical MCB Importance of MCB in Medicine 1. Epidemics in MCB 2. Antibiotic Production by some Micro organizations. 3. Vaccine productions 4. Role of MCB in preventive medicine.
1b	Classification of micro-organisms. - Viruses, Fungi, Bacteria, Parasites
2	Morphology and Classification of Protozoa
3	Morphology and Classification of Fungi
4	Morphology and Classification of Helminthes
5	Morphology and Classification of Viruses
6	Morphology and classification of Bacteria
7	History of Microbiology (Major scientists)
8	Growth and Bacterial nutrition
9	Bacterial Genetics
10	Sterilization/Disinfection
11	Introduction to immunology/types of immunity.
12	Antigens/Hap tens
13	Organs of the immune system
14	Hum oral Immunity.
15	Cell mediated immunity
16	Viral replication
17	Virus cell interactions:- antiviral agents

PATHOGENESIS

S/NO	COURSE OUTLINE
1.	Transmission of parasites

	1. Routes of transmission. 2. Terminologies 3. Infection, parasitism, infestation, zoonosis.
2.	a. Pathogenesis of blood and Tissue protozoa b. Pathogenesis of blood and Tissue Protozoa c. Leishmaniasis and Trichomoniasis
3	Pathogenesis of intestinal Protozoa - Amoebiasis, Candidiasis, Cryptosporidiosis; Balantidiasis
4	Pathogenesis of blood and tissue Helminthes - Filariasis, Onchocerciasis, Loaiaasis, Guinea worm; Trichinellosis
5	Pathogenesis of intestinal helminthes – Ascariasis, Ancylostomiasis.
6	Toxoplasmosis and other Coccidiosis
7	Trematodes – Pathogenesis
8	Blood Flukes,, Intestinal flukes, liver flukes and Lung flukes
9	Cestodes – Pathogenesis
10	Medical Entomology
11	Parasitic Zoonosis
12	Antigen – Antibody reaction
13	Cellular Immunity – mechanism.
14	Nutrition and immunity
15	Epidemiology & Pathogenesis of viral infection in man
16	Zoonotic viral infection

DIAGNOSIS, MANAGEMENT AND CONTROL OF MICROORGANISMS PARASITOLOGY

S/NO	COURSE OUTLINE
1	Diseases management (mgt) and control of Tissue and Blood nematodes.
2	Diseases mgt and control of intestinal nematodes.
3	Diseases, mgt and control of blood and tissue protozoa
4	Diseases mgt and control of intestinal protozoa
5	Diseases mgt and control of Trematodes.
6	Diseases mgt and control of Cestodes.
7	Sexually transmitted diseases (STD).
8	Larva migrans and myiasis
9	Parasitic Zoonosis.
	BACTERIOLOGY
10	Terminologies in infectious diseases (endotoxin, exotoxin antitoxin, toxoid etc.)
11	Staphylococci and streptococcal infections.

12	Neisseria Corynebacteria and their infection
13	Upper and lower respiratory infections
14	Urinary tract infections
15	Central nervous system infection
16	Mycobacterial infections M. tuberculosis and M. leprae
17	Blood stream infections
18	Bones, its, skin and soft tissue infections.
19	Enterobacteriaceae.
20	Other Gram negative bacteria: Haemophylus, Pseudomonas, Helicobacter and Campylobacter.
21	Gram positive Bacilli
22	Infective diarrhea bacterial.
23	Food Poisoning.
24	Actinomycosis and Nocardiosis
25	Yeasts & Pseudo-yeasts.
26	Superficial, Cutaneous, subcutaneous and systemic mycosis
27	Opportunistic infections
28	Hospital acquired infections
29	Chemotherapy and antibiotics
	IMMUNOLOGY
30	Deficiencies in Cell Mediated Immunity (CMI)
31	Hypersensitivities.
32	Immunodeficiencies.
33	Auto-immune diseases
34	Immunity and bacterial, viral parasitic and fungal infections.
35	Vaccination and immunization
36	Immunosuppression and immunopotentiality (immunotherapy)
37	Molecular biology techniques in the diagnosis of infection.
	VIROLOGY
38	Viral infection of the upper and lower respiratory tract.
39	Viral infections of the CNS
40	Viral causes of STD
41	Viral exanthemas: Papillomas, herpes group, rubella and pox viruses.
42	Viral infections of GIT e.g. Echo, Coxsackie's, Rota and Adeno Viruses.
43	Haemorrhagic fever Viruses - Yellow fever, Lassa, Ebola, Marburg etc. Bacterial - Leptospirosis.
44	H I V
45	Tumour-forming viruses,

47	Congenital viral infections.
48	Application of molecular biology in medical microbiology.
49	Application of computer Sciences in medical microbiology.
50	DIAGNOSTIC – GENERAL Laboratory Safety
51	Diagnostic microbiology. 1. Specimen collection transportation and preservations 2. Microscopy 3. Processing of specimens 4. Staining techniques in Microbiology 5. Cultures 6. Bacteria/Fungal 7. Protozoa 8. Viral 9. Serology 10. Immuno diagnosis
52	Tissue and organ transportation
53	Viral chemotherapy.
54	Prevention control of infection

MBBS CURRICULLUM IN PATHOLOGY

Pathology (Morbidity Anatomy & Histopathology)

400 Level.

1. Introductory pathology
2. Introduction to morbidity anatomy and histopathology.
3. Applied history, Cell reaction to injury, cellular adaptation to injury, cell death.
4. Acute inflammation, and morphological forms of acute inflammatory process.
5. Chronic inflammation and granuloma formation.
6. Healing/Repair and regeneration of tissues
7. Physical and Chemical agents in the causation disease.
8. Genetic basis of diseases.
9. Neoplasia and carcinogenesis, clinical aspects of neoplasia.
10. Vascular and circulatory disturbances
11. Degenerative and metabolic disorders
12. Block 1 posting (400l)
13. Systemic Pathology
14. Systemic Pathology of Cardiovascular System;
15. Congenital heart disease, Rheumatic heart diseases,

16. Cardiomyopathy.
17. Ischaemic heart disease, Hypertensive heart disease, Infective cardiac.
18. Disorders, Cardiac pathology in the tropics
19. Systemic Pathology of Respiratory System;
20. Upper respiratory tract.
21. Vascular and hemodynamic disorders of the lungs
22. Pulmonary infections
23. Chronic obstructive and obstructive pulmonary disorders
24. Pulmonary tuberculosis
25. Lung Tumours
26. Systemic Pathology of Gastrointestinal System;
27. Congenital GIT abnormalities
28. Mechanical and muscular disorders of the GIT
29. Gastritis
30. Malabsorption
31. Colitis
32. Gastric carcinoma
33. Colonic Carcinoma.

MB.BS CURRICULUM IN PHARMACOLOGY

INTRODUCTION TO PHARMACOLOGY COURSES

The aim of these courses is to familiarize you with the basic concept and principles of Pharmacology. The course will begin with a review of the Autonomic nervous system, how drugs modify such physiological function, their interaction with receptors, clinical applications and how they produce toxic or unwanted side effects. We will then review how drugs reach their sites of action, how they produce their effect and the factors that influence the duration and magnitude of drug action. Selected classes of drugs that best illustrate these principles will be discussed. These will include drugs that alter the function of cells membranes, interact with drug receptors, inhibit or induce enzymes, etc. Principles of clinical pharmacology and therapy of important disease will be considered also during the course.

COURSE TEST

A series of course tests will be given as the lectures proceed and each will cover all areas discussed up to the time of the examination. The course test will be of multiple-choice type usually 32 in number and at least two essays as well as oral examination at the end of each test. It is planned that by the end of the course (including the revision tutorial session in the 5th year), at least 4 continuous assessment tests must have been given. Attendance at each course test is compulsory for any student to be eligible to sit for the Part II Professional MBBS Examination in Pharmacology. The marks obtained are used as part of the continuous assessment and will form 50% of the final mark of the Professional Examination in Pharmacology.

THE PROFESSIONAL EXAMINATION IN PHARMACOLOGY.

The final examination will comprise of two papers of which paper I will be of essay type and candidates will answer five out of the six questions provided. Paper II will consist of at least 100 multiple choice questions and theory of practical which will cover the subject matter presented in lectures, laboratory sessions and in handout materials. Each paper will last 3 hours.

THE PHARMACOLOGY LABORATORY PROGRAMME: OUR TEACHING GOAL

Administration of a drug to a human can elicit a variety of responses depending on the nature of the illness, possible interactions of the drug with stomach contents or other drugs, and a host of other variables that can modify the expected response to the point of being unrecognizable.

In your clinical practice, you will be dealing with real illness in real people. To do so safely, you must be able to predict and explain the action of drugs in living systems.

Our laboratory program is designed to help you acquire these skills in a stepwise fashion: First, by observing the effects in an isolated tissue preparation that is unencumbered by outside influences; and then in the whole animal where physiological reflexes may modify the actions of the drug. Finally some therapeutic and toxic effects of drugs are explored, although this subject is better and more fully dealt with in other courses.

In these laboratory periods we cannot attempt, nor do we expect to make you into research pharmacologist. But the experience you get with these carefully selected procedures will help you develop the skill to predict the actions of other drugs, in different settings while you are in practice.

Nature of the Laboratory Programme

The program consists of a number of simple problems that are to be solved in a laboratory situation. These problems must be solved in evaluating any drug action, in any living system. The lessons learned can be extrapolated to the real-life problems of evaluating any drug for human use and understanding the clinical and therapeutic effects of that use of the drug.

Please note that the emphasis on problem solving is not on the basic pharmacology of the drugs. When living systems such as the rabbit jejunum preparation are treated with drugs there is a response which can be observed and measured. But because it is living and subject to the very many environment variations, response of the system to a given drug varies a great deal from one item to another. A major complaint of students who do not understand this is that “the laboratory is terrible; we couldn’t get the preparation to work.” Biological variability is a fundamental characteristic of all living systems and dealing with it is one of the main problems we want you to learn to solve.

When the living system is a whole animal, an anaesthetized dog, cat or a human, there are further complications because the direct action of the drug on its target organ or tissue usually evokes a corrective or homeostatic reflex response from the animal. The resulting interaction between this direct action of the drug and the secondary response of the animal to it can be confusing indeed, especially to students just beginning the study of Pharmacology. The dog or cat demonstrations are intended to help you resolve this kind of confusion.

WHAT THE LABS ARE NOT

It is not the main objective of these laboratory sessions for you to learn autonomic Pharmacology- although they do not give a useful in depth review of this group of drugs and some of their complex actions. But autonomic drugs are the ones which can best be used to attain the goal of the laboratory programme. If you learn well

how to interpret the actions of these drugs, you will easily be able to make the extrapolation to others.

To re-state our goal then: we are trying to help you understand Pharmacology by involving you in its application in real systems, NOT simply prodding you into memorizing more basic drug actions.

USE OF ANIMALS

Living animals are rarely used in Pharmacology laboratory demonstrations, and then only the objective cannot be attained with other procedures e.g. pre-recorded materials; but Pharmacology is a life science, and as such involves the use of living animals and tissues. In keeping with the philosophy of prevention of cruelty to animals the use of living animals will be limited to a minimum and in the hands of skilled persons. Animal care is of the highest standard and only approved human techniques of experimentation are used.

PHARMACOLOGY & THERAPEUTICS (PHT) CURRICULUM FOR MB.BS

DURATION: Two semesters

EXAMINATIONS:

1. Continuous assessment test will be organized at the end of each semester to cover all areas discussed during lectures and practical.
2. PART II or SECOND PROFESSIONAL EXAMINATION IN PHARMACOLOGY AND THERAPEUTICS. Will be held 42-44 weeks from commencement of the clinical programme and will cover all aspects of pharmacology and therapeutics discussed or covered during the four semesters.

SUMMARY OF CURRICULUM

PHT I: 2nd semester 300 level:

1. **PHT 301:** General pharmacology and pharmacokinetics, 20 hours (2 credit load of lectures).
2. **PHT 302:** Pharmacology of the Autonomic Nervous System + practical, 30 hours (2 credit load of lectures + 1 credit load of practical = 3 credit load).

CLINICAL YEARS

PHT II: 400 level:

1. **PHT 401:** Cardiovascular pharmacology + practical, 30 hours (3 credit load of lectures = 3 credit load).
2. **PHT 402:** Systemic pharmacology 30 hours (2 credit load of lectures + 1 credit load of practical = 3 credit load).

PHT III:

1. **PHT 403:** Hormones and endocrine pharmacology + practical, 30 hours (2 credit load of lecture + 1 credit load of practical = 3 credit load).

1. **PHT 404:** Chemotherapy, 30 hours (3 credit load of lectures).

PHT IV (Senior Posting):

1. **PHT 405:** Central nervous system pharmacology, 30 hours (3 credit load of lectures).
2. **PHT 406:** Drug misuse and Toxicology + practical, 30 hours (2 credit load of lectures + 1 credit load of practical = 3 credit load).

COURSE CONTENT:

PHT I: 2nd semester 300 levels:

PHT 301: General pharmacology and pharmacokinetics 20 hours of lectures.

1. Introduction to pharmacology
2. General Principles of Pharmacology
3. Sources of Drugs
4. Concept of Receptors, Receptors Theories
5. Agonists, Partial Agonists and Antagonists
6. Types of Drug Antagonism
7. L.D 50, TI, Biological Variation
8. General Mechanism of Drugs Action
9. Routes of Drugs Administration
10. Absorption and distribution of Drugs
11. Metabolism of Drugs, Elimination of Drugs
12. Kinetics I- Single Dose
13. Kinetics II – Multiple Dose
14. Adverse Drug Reaction and Drug Interactions

PHT II (302): Pharmacology of the Autonomic Nervous System 20 hours.

1. Introduction to Neurotransmission
2. Cholinergic Neurotransmission and Cholinomimetic Drugs
3. Anticholinesterases
4. Muscarinic Receptor Blockers (Atropine etc)
5. Nicotinic Receptor Blockers (Hexamethonium)
6. Neuromuscular Junction Blockers and Muscle Relaxants
7. Antispasmodic Drugs (Baclofen etc)
8. Myasthenia Gravis
9. Noradrenergic Neurotransmission
10. Direct and Indirect Sympathomimetics
11. Sympathetic Neurone Blockade
12. Alpha and Beta Adrenoceptor Agonists and Antagonists
13. CNS Active Partial Agonists

**(CONTINUOUS ASSESSMENT TEST I)
CLINICAL YEARS**

PHT II (1st semester 400 level);

PHT II: 401: CARDIOVASCULAR SYSTEM PHARMACOLOGY 30 hours

1. Introduction: Physiology of the CVS
2. Cardiac Glycosides
3. Anti-dysrhythmic (Anti-arrhythmic) Drugs
4. Anti-hypertensives
5. Vasodilators and Anti-anginal Drugs
6. Renin-Angiotensin System (Captopril)
7. Diuretics
8. Vasoactive Peptides and their analogues (Renin, Angiotensin, Kinins etc)
9. Drug Treatment of Shock
10. Drugs for Raynaud's Disease
11. Calcium and Potassium Channel Blockers
12. Cholesterol and Hypocholesterolemic Drugs
13. Coagulants, Anticoagulants and Fibrinolytics
14. Lipid-Lowering Agents e.g Clofibrates
15. Oxytocin and Ergot Alkaloids
16. Treatment of Migraine Headache
17. Local Anaesthetic
18. Phosphodiesterase Inhibitors

HT III (402): SYSTEMIC PHARMACOLOGY

1. Iron and Iron Deficiency Anaemia and other type of Anaemia
2. Vitamins and Trace Elements
3. Asthma and Cough: Aetiology
4. Antiasthmatic and Management of Cough
5. Nasal Decongestants : Local and Systemic
6. Gastric Antacids and Drugs used in Peptic Ulcer etc.
7. Emetics and Antiemetics
8. Purgatives, Laxatives and Antidiarrhoeals
9. Appetite Suppressants
10. Drugs for gall-bladder and recto-anal disorders
11. Drugs for Gout, Hyperuricaemia and Uricosurics

(CONTINUOUS ASSESSMENT TEST II)

PHT III.

1. PHT 403: HORMONES AND ENDOCRINE PHARMACOLOGY 20 hours

1. Local Hormones and Inflammation: Serotonin, Kinins, Nitric Oxide
2. Donors and Inhibitors
3. Histamine and Antihistamine H₁,
4. Antihistamine H₂, and Peptic Ulcer
5. Prostaglandins, thromboxanes, Leukotrienes and Antagonists
6. Anti-inflammatory, Anti-pyretics, Analgesics
7. Hypothalamic-pituitary Axis Hormones
8. Pituitary-Releasing Factor Drugs
9. Hormones of the Pituitary Gland
10. Thyroid and Anti-thyroid Drugs
11. Parathyroid Hormones, Calcitonin and Vitamin D
12. Oestrogens, Progestogens, Oral Contraceptives and Ovulatory Drugs
13. Androgens and Anabolic Steroids
14. ACTH, Glucocorticoids and Mineralocorticoids
15. Steroid Therapeutics
16. Insulin, Glucagon and Hypoglycaemics
17. Treatment of Diabetes

1. PHT 404: CHEMOTHERAPY 30 hours

1. Introduction to Anti-infective Pharmacology
2. Selective Toxicity: Biochemical and Distributional
3. Sulfonamides, Sulphones, Trimetoprim etc
4. Penicillins, Cephalosporins and other cell wall inhibitors
5. Macrolids e.g Erythromycin, Chloramphenicol etc
6. Tetracyclines
7. Aminoglycosides and Minor Antibiotics
8. Therapy of TB and Leprosy
9. Chloroquine and other Antimalarials
10. Metronidazole and Anti-amoebics
11. Other Anti-protozoal Drugs
12. Anti-fungal Drugs
13. Anti-Viral drugs, HIV/AIDS
14. Anti-helminthics: Flatworms and Roundworms Infestations
15. Disinfectants and Insecticides
16. Cancer Chemotherapy
17. Eye and ENT Drugs
18. Mechanisms of Drugs Resistance

(CONTINUOUS ASSESSMENT TEST III)

PHT IV (Senior Posting)

1. PHT 405: CENTRAL NERVOUS SYSTEM PHARMACOLOGY 30 hours

1. Central Neurotransmitters
1. Parkinson's Disease: Aetiology and Treatment
2. Barbiturates – Sedatives and Hypnotics
3. Tranquilisers – Benzodiazepines
4. Anaesthetics – Inhalation
5. Anaesthetics – Intravenous
6. Stimulants and Hallucinogens
7. Cognition Enhancers
8. Neuroleptics
9. Treatment of Psychosis
10. Antidepressants and 5-HT re-uptake inhibitors
11. Treatment of Depression and Anxiety
12. Narcotic Analgesics : Endorphines, Enkephalin etc
13. Drugs for Senile Dementia and other CNS degenerative disorders

- 14. PHT 406: MISUSE OF DRUGS, TOXICOLOGY AND OTHER BASICS 20 hours**
 1. Misuse of Drugs 1 – Antibacterial
 2. Misuse of Drugs 2 – Psychotropic Drugs
 3. Toxicology and Environmental Health
 4. Pharmacogenetics
 5. Monitoring of Drug Therapy
 6. Drug Therapy in the Young , Elderly and in Pregnancy
 7. Patient Compliance, Placebos
 8. Drug Development : The pharmaceutical Industry and the Regulatory Authorities
 9. Clinical Trials
 10. Herbal Medicines (Ethnopharmacology 1&2)
 11. Basic Computer Science in Pharmacology
 12. Research Methodology: Manuscript Writing and Research Grant Proposal Writing
 13. Ethics in Pharmacology

Course Manual for Pharmacology

Review on the application of drugs to human conditions (therapeutics).

These will be of value to you throughout your career as a physician as they provide up-to-date and informed review on therapeutics. You should therefore begin reading such material from your first year in medical school.

The following journals are carried by the medical section in the library and regularly include excellent reviews on drugs and their application in disease states:

“Drugs”

“The Medical Letter”

“Pharmacology for Physicians”

“New England Medical Journal”

Recent articles on Therapeutics which have appeared in the N.E.M.J are published separately in “Drug Therapy”

PHARMACOLOGY PRATICAL SCHEDULE

1	Quantitative Drug Dilution
2	Drugs and the Human Eye
3	Dose Response Relationship using Histamine
4.	Dose Response Relationship using Acetylcholine
5	Drug Kinetics I
6	Anti-cholinesterases
7	Drugs and Exercises
8	Drug Kinetics II
9	Identification of unknown Drug
10	Comparative Routes of Drug Administration
11	Agonist Antagonist Ach/Atropine
12	Agonist Antagonist Histamine/Mepyramine
13	LD50 /ED 50 Determination
14	Anaesthesia & Respiration
15	Rabbit jejunum
16	Local Anaesthetics
17	Phrenic Nerve Preparation
18	Rat Uterus Preparation

Each Practical will take 3 Hours.

MBBS CURICULLUM IN PHYSIOLOGY

DURATION: Three Semesters

COURSE OUTLAY:

First Semester: (12 weeks)

1. PHS 201- Introduction to general principles of physiology in basic medical Sciences;Body compartments, Cell and genetics.
2. PHS 203 - Physiology of Blood and Body fluids.
3. PHS 205- Physiology of Blood and Body fluids
4. PHS 207 - Physiology of digestion and absorption.

Second Semester: (21 weeks)

1. PHS 202 - Physiology of excretion (kidney and Skin)
2. PHS 204 - Cardiovascular physiology
3. PHS 206 - Respiration and environmental physiology.
4. PHS 208 - Neurophysiology I (Sensory systems)

Third Semester: (17 weeks)

1. PHS 301 - Endocrine physiology
2. PHS 303 - Physiology of reproduction.
3. PHS 305 - Neurophysiology II (Motor system and Thermoregulation)
4. PHS 307-Physiology of Special Senses

COURSE CONTENTS:

1. **INTRODUCTION TO PHYSIOLOGY**
1. Description and Functional organization of the Human body
1. Cells as units of the body
2. Internal environment
3. Homeostatic mechanisms of the systems
4. Regulatory systems of the body
1. The Cell and its Functions:
 1. Structural Organisation of the Cell
 2. Functional systems of the Cell.
1. Transport Mechanisms across the cell membrane.
 1. Diffusion
 2. Active transport
 3. Specialized transport phenomenon.
1. Cell Genetics:
 1. Protein Synthesis
 2. Cell differentiation

3. Cell reproduction.
2. **PHYSIOLOGY OF BLOOD AND BODY FLUIDS**
3. Body fluids:
 1. Distribution
 2. Composition
 3. Measurement and regulation
4. Blood:
 1. General composition and function
 2. Plasma protein
 3. Origin and functions
 4. Blood volume measurement
 5. Variations and regulations
 6. Erythrocyte formation
 7. Structure and function
 8. Life span
 9. Haemoglobin
 10. Haematocrit and haematological indices
 11. Physiological variations
 12. Anaemia and Polycythaemia
1. Leucocytes:
 1. Classification
 2. Structure and functions
 3. Formation
 4. Life span and physiological variations
 5. Thrombocytes formation
 6. Structure, functions and physiological variations
1. Reticuloendothelial system
 2. Components and functions
1. Coagulation:
 1. Mechanism
 2. Anti-coagulants
1. Clinical test for clotting and Haemorrhagic disorders
1. Fibrinolysis-mechanism and significance
1. Blood group- classification and importance
1. Blood transfusion
1. Rh factor and its clinical importance
1. Lymph composition, origin, circulation, and functions.
2. **PHYSIOLOGY OF DIGESTION AND ABSORPTION**
3. Functional anatomy of alimentary canal
4. Composition

5. Mechanism and regulation of secretion and functions of salivary
6. Gastric, pancreatic
7. Intestinal and biliary secretion
8. Mechanics of alimentary canal:
 1. Mastication
 2. Deglutition
 3. Vomiting
 4. Gastro-intestinal movements and defaecation
 5. Digestion and absorption of food-stuffs.

6. **PHYSIOLOGY OF EXCRETION (KIDNEY AND SKIN)**

Kidney

1. Modes of excretion
2. Functional anatomy of kidneys and general functions
3. Renal circulation
4. Composition of urine
5. Mechanism of urine formation
6. Mechanism of micturition
7. Abnormalities of micturition
8. The kidney as an endocrine organ
9. Role in acid-base regulation

Skin

10. Functional anatomy of skin
11. Cutaneous receptors
12. Sweat secretion and its role in temperature regulation.

13. **CARDIOVASCULAR PHYSIOLOGY**

1. Functional anatomy of cardio-vascular system
2. Properties of cardiac muscle
3. Cardiac cycle-pressure and volume changes and heart sounds
4. Electrocardiography
5. Heart rate and its regulation
6. Stroke volume and venous return
7. Cardiac output and its regulation
8. Origin and propagation of cardiac impulse
9. Arterial blood pressure-definition
10. Measurement
11. Regulation and importance
12. Venous pressure
13. Capillary circulation and triple response
14. Regional circulation including coronary circulation and cardio-vascular adaptation in muscular exercise.

15. RESPIRATION AND ENVIRONMENTAL PHYSIOLOGY

1. Functional anatomy of respiratory tract
2. Mechanics of breathing and pulmonary ventilation
3. Pulmonary circulation
4. Regulation of respiration
5. Carriage of oxygen and carbon-dioxide
6. Oxygen therapy
7. Pulmonary function tests
8. hypoxia
9. Dyspnea
10. Cyanosis
11. Respiratory adaptation to muscular exercise.
12. Physiological responses to high altitude
13. Dysbarism
14. Regulation of body temperature.

300 level 1st Semester

15. ENDOCRINE PHYSIOLOGY

1. Hormones-general characteristics
2. Methods of study of endocrine glands
3. Structure, functions
4. Mechanism and regulation of secretion and functional disorders of pituitary
5. Thyroid
6. Adrenals and islet of Langerhans

7. PHYSIOLOGY OF REPRODUCTION:

1. Sex differentiation and determination
2. Testis
3. Spermatogenesis
4. Functions and regulation of secretion
5. Functions of accessory sex glands in male
6. Effect of castration in male
7. Ovary-menstrual cycle
8. Functions of ovary
9. Secondary sexual characteristics in male and female
10. Physiology of coitus
11. Pregnancy and lactation
12. Physiological principles of contraception.

13. PHYSIOLOGY OF MUSCLE AND NERVE

1. Bio-electricity
2. Muscle;

3. Classification
4. Structure and chemical composition of skeletal muscle
5. Mechanism of contraction
6. Energy sources
7. Heat production
8. Characteristics of muscular contraction
9. Isometric and isotonic contraction
10. Electrical properties
11. Muscle twitch and its phases
12. Effects of two and multiple stimuli
13. Tetanus
14. Fatigue and rigor mortis
15. Motor unit
16. EMG
17. Length-tension relationship
18. Red and white muscles
19. Neuro-muscular transmission
20. Physiology of smooth muscle.
21. Nerve
22. Electrophysiological properties;
23. Strength-duration curve
24. Electrotonus
25. Origin and propagation of nerve impulse classification of nerve fibres and properties of mixed nerves; physiology of synapse.
- 26. PHYSIOLOGY OF NERVOUS SYSTEM**
 1. Functional anatomy and components of nervous system
 2. Spinal cord and its functions
 3. Lesions of spinal cord and brain-stem
 4. Reflex action and its properties
 5. Classification of reflexes
 6. Sensory system-types of sensory modalities and their perception
 7. Thalamus
 8. Cerebral cortex-structure
 9. Areas
 10. Connection and functions
 11. Effects of lesions
 12. Motor system-origin and course of cortico-spinal tract and effects of lesions
 13. Extra pyramidal system-components
 14. Connection and functions and effects of lesions
 15. Vestibular apparatus, reticular formation
 16. Muscle tone
 17. Postural mechanism

18. Limbic system-components
19. Connection and functions
20. Electroencephalography (EEG)
21. Physiology of sleep and consciousness
22. Learning and memory
23. Speech and conditioned reflex
24. Autonomic nervous system,
25. Cerebro-spinal fluid (CSF).

26. **PHYSIOLOGY OF SPECIAL SENSES.**

VISION:

1. Functional Anatomy of Visual Apparatus
2. Photopic and scotopic vision and the visual circle
3. ERG
4. Acuity of vision and colour vision
5. Visual fields and visual pathways including the effects of lesions
6. Optical media and the errors of refraction and their correction
7. Ciliary body
8. Lens and accommodation
9. Iris and pupil
10. Intraocular fluids and pressure.

HEARING:

1. Functional anatomy of the auditory apparatus,
2. Mechanism of hearing
3. Roles of external
4. Middle and inner ear
5. Auditory pathways and tests for hearing.

TASTE:

1. Taste receptors
2. Distribution of taste buds
3. Mechanisms of taste perception
4. Sensory pathways for taste
5. Smell (olfactory) sensation
6. Olfactory receptors
7. Mechanism of olfaction
8. Sensory pathways for olfaction
9. Adaptation of chemical senses.

LECTURE/PRACTICAL/SEMINAR SCHEDULE

The following systems will be covered in this course with a review of the basic concepts of mathematics, physics, chemistry and biology relevant to the study of Human Physiology. The programme will include General Physiology, Nerve and muscle Physiology, Body fluids and Blood, Cardiovascular Physiology (Circulation), Respiratory Physiology, Renal Physiology, Gastrointestinal Physiology, Nutrition and Metabolism. At least two laboratory Practical's will be given per each of the systems.

FACULTY OF CLINICAL SCIENCES (YEARS 4, 5 AND 6)

Introduction:

These are the Hospital-based (Clinical) years that commence after completion of the Pre- Clinical Curriculum and success in the First MB.BS Professional Examination as stipulated in the CHS Regulation and approved by Senate. The period of Clinical Clerkship is about 152 – 156 weeks duration. The period allocated for the various clinical sciences are

1.	Medicine	30 weeks
2.	Surgery	30 weeks
3.	Obstetrics and Gynaecology	18 weeks
4.	Paediatrics	18 weeks
5.	Community Health	20 weeks (6, Premedical)
6.	Pharmacology and Therapeutics	8 weeks
7.	Haematology	4 weeks
8.	Microbiology & Parasitology	4 weeks
9.	Chemical Pathology	4 weeks
10.	Pathology	8 weeks
11.	General Medical Practice	4 weeks
TOTAL		148 weeks

Instructions will consist of:

1. Bedside Teaching/Learning.

2. Didactic Lectures/Tutorials.

3. Practical Training, which will include the following:

12. Ward Rounds.
13. Theatre Sessions.
14. Medical Procedures.
15. Outpatient Clinics.
16. Emergency Procedures.
17. Laboratory and Post-mortem Practice, Therapeutics and Drug administration.
18. Nursing Services.
19. Rehabilitation Methods.

4. Community Health Programmes, Primary Health Care, Sociological Aspects of Medicine.

5. General Hospital Administration

The Clinical Subjects are:

1. **Medicine** (a Composite discipline that includes: General Medicine and its Subspecialties and Psychiatry.)
2. **Pediatrics.**
3. **Surgery** (a Composite discipline that includes: General Surgery, Anaesthesia, Otorhinolaryngology, Orthopaedics, Ophthalmology, Neurosurgery and Radiology).
4. **Obstetrics and Gynaecology.**
5. **Pathology** (a composite discipline that includes: Bacteriology & Parasitology, Chemical Pathology & Immunology, Haematology Morbid Anatomy & Forensic Medicine).
6. **Community Health** (a composite discipline that includes Biostatistics, Epidemiology, Primary Health Care & Community Medicine).

The postings are split into blocks and subdivided into Junior and Senior Postings. Emphasis is placed on practical training and imparting basic and necessary skills to the student to enable him /her function effectively as a Medical Officer in the Nigerian context. The Curriculum contents are sufficiently detailed to give the graduate of BSU Makurdi adequate academic background to prepare him for either general practice or academic medicine.

MBBS CURRICULLUM IN EPIDEMIOLOGY & COMMUNITY HEALTH

The Department of Epidemiology and Community Health commences the teaching of medical students at 200 level and continues up to 600 level. The goal of the training in epidemiology and Community Health is to produce medical doctors with knowledge and skills in identifying and prioritizing health problems at community level and to proffer solutions to them. At the end of their training, they should be prepared for further training in Community Health or any of its subspecialties.

The specific objectives include:

1. To introduce to the students the concept of Epidemiology, Community Health, its subspecialties and its relevance in the health care delivery system.
2. To equip the students with the knowledge and skills to be able to carry out basic epidemiological studies to identify and prioritize health problems in the community and proffer solutions to them.
3. To equip the students with the knowledge and skills to be able to plan, organize and evaluate health programmes in collaboration with other members of the health team.
4. To develop in the students the spirit of team work in promoting health in all Population groups of Nigeria.

TEACHING AND LEARNING METHODS

1. Power points and audio-video recordings.
2. Group discussions and presentations.
3. Visits to environmental Health and Social Medicine facilities as well as occupational health, primary health care, school health services, international organisations, epidemiological units and relevant government ministries and departments.
4. Community diagnosis in designated communities in Benue state.
5. Seminars, tutorials, demonstrations and practicals.

EVALUATION

1. Students are evaluated on the basis of satisfactory attendance and participation in lectures, tutorials, seminars, the clinical/field visits and examinations.
2. Satisfactory completion of project work.
3. Continuous assessments.
4. Professional Examinations at 300 and 600 levels.

COURSES

200 Level		
1.	History of Medicine	COM 201
2.	Human Ecology	COM 202
3.	Social Medicine	COM 203
4.	Introduction to Biostatistics	COM 204
300 Level		
5.	Environmental Health	COM 301
6.	Introduction to Primary Health Care	COM 302
7.	Introduction to Demography	COM 303
8.	Health Education	COM 304
400 Level		
9.	Epidemiology/ Principles & Methods	COM 401
10.	Health Services, Management and Administration	COM 402
11.	Maternal and Child Health Care	COM 403
12.	School Health Services	COM 404
13.	Inferential Biostatistics	COM 405
14.	Medical Ethics	COM 406
15.	Health Education	COM 407
500 Level		
16.	Occupational Health	COM 501
17.	International Health	COM 502
18.	Epidemiology of communicable and non communicable diseases	COM 503
19.	Epidemiology of Zoonoses	COM 504
20.	Endemic Disease and STD clinics	COM 505
21.	Public Health Nutrition	COM 506
22.	Health Economics	COM 507
23.	Rehabilitative medicine	COM 508
24.	Research Methods/Projects	COM 509
25.	Field activities.	COM 510
600 Level		
26.	Family Life and Reproductive Health	COM 601

27.	Community Diagnosis	COM 602
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HISTORY OF MEDICINE

Course objectives

At the end of the course the student should be able to list and describe the evolution of medicine.

CONTENT

1ST Semester (COM 201)

Medicine in antiquity

1. Primitive medicine.
2. Indian medicine.
3. Chinese medicine.
4. Egyptian medicine.
5. Mesopotamian medicine.
6. Greek medicine.
7. Roman medicine.
8. Middle ages.

Dawn of scientific medicine

1. Revival of medicine.
2. Sanitary awakening.
3. Rise of public health.
4. Germ theory of disease.
5. Birth of preventive medicine.

Modern medicine

1. Curative medicine.
2. Preventive medicine.
3. Social medicine.
4. Changing concepts of public health.

History of Medicine in Nigeria

HUMAN ECOLOGY (COM 202)

Course objectives:

At the end of the course the students should be able to describe man and his environment.

CONTENT

Ecological concepts.

1. Components of the environment (physical, biological and social).
2. Man's interaction with environment.
3. Global Warming: concepts, principles and effects.

SOCIAL MEDICINE (COM 203)

Course objectives

At the end of the course the students should be able to list and describe the human organizations and systems, human populations, behavioural concepts, roles of culture, social, psychological and geographical factors in the aetiology of disease and accessibility to health care services and basic principles of medical psychology.

CONTENT

1. Human organizations and systems.
2. Stages of human development.
3. Social structure/class, culture and health.
4. Traditional and Modern Health systems.
5. Description of Human population.
6. Behaviour, illness and health.
7. Change processes.
8. The family and its influence on illness.
9. Patient-Doctor Relationship.
10. The community as a laboratory.
11. Communication Signals and problems.
12. Medical Psychology.

INTRODUCTION TO BIOSTATISTICS(COM 203)

Course objectives

At the end of the course the students should be able to list and describe the theory and techniques of collecting, collating, analyzing and interpreting data.

CONTENT

1. Role of biostatistics in medicine.
2. Data Collection.
3. Methods of computation and analysis of numerical data.
4. Scales of measurement.
5. Summarization and Presentation of data.
6. Measures of central tendency.
7. Measures of variability.
8. Probability and inductive statistics.
9. Normal distribution.
10. Estimating Population values.

300 LEVEL COURSES

ENVIRONMENTAL HEALTH (COM 301)

Course objectives

At the end of the course the students should be able to list and describe the relationship between environmental factors and health and acquire skills on the assessment and management of modern environmental health problems.

CONTENT

1. Components of environmental health.
2. Water supply and waste disposal.
3. Control of Air Pollution.
4. Housing and health.
5. Food hygiene.
6. Vector control.
7. Medical toxicology.
8. Legislation and environmental health.

INTRODUCTION TO PRIMARY HEALTH CARE CONCEPT (COM 302)

Course objectives

To introduce the students to the objectives concepts and organizing of primary health care.

CONTENTS

1. History of Primary Health Care.
2. Objectives of Primary Health Care.
3. Components of Primary Health Care.
4. Organization of Primary Health Care.
5. Implementation machinery for Primary Health Care.

DEMOGRAPHY (COM 303)

Course objectives

At the end of the course the students should be able to list and describe the socially and biologically based population processes and their consequences on public health and social policy.

CONTENT

1. Standardization of vital rates.
2. Population dynamics structure and growth.
3. Sources of population data.
4. Sources of health and vital statistics.
5. Demographic components, demographic theories,
6. Measurement of fertility and mortality.
7. Population dynamics, structure and growth.
8. Health and population growth.

PRINCIPLES/METHODS IN HEALTH EDUCATION (COM 304)

1. Planning health education for individual and groups.
2. Principles of communications.
3. Selection and production of appropriate audiovisual aides.

400 LEVEL COURSES

EPIDEMIOLOGY: PRINCIPLES/METHODS (COM 401)

Course objectives:

At the end of the course the students should be able to acquire knowledge and skills

1. To conduct epidemiologic research.
2. Formulate disease preventive strategies.
3. Acquire knowledge and skills to critically review health-related research literatures.
4. Predict future trends in disease occurrences.

CONTENT

1. Historical concepts of epidemiology.
2. Definition and uses of epidemiology.
3. Spectrum of Health and Disease.
4. Measures of diseases frequency prevalence and incidence rates.
5. Sources of morbidity and mortality data.
6. Concept of Epidemicity, Endemicity, and Pandemicity.
7. Epidemiological study designs-methods.
8. Measurement of health and disease.
9. Principles of disease causation and prevention.
10. Measurement of risk of disease using epidemiological data.
11. Surveillance.
12. Evaluation of diagnostic and screening tests.
13. Critical reading of published reports.
14. Application of epidemiology in health policy and services.

HEALTH MANAGEMENT(COM 402)

Course objectives

1. To understand the basic concepts, principles, tools and techniques of modern management and their practical application at various levels of health care delivery.

2. To acquire skills in modern health management required for improved performance, cost-effectiveness, and efficiency in health care delivery services.

CONTENT

1. History of health services administration.
2. Concepts, principles and functions of management.
3. Organizational structure/the health team.
4. The health planning process.
5. Organization and management of health services in Nigeria.
6. Integration of services for Primary Health Care.
7. Comparative analysis of health care system in different countries.
8. Problem-solving in management.
9. Management of staff, transport, drugs, equipment and supplies.
10. The economics of health care.
11. Evaluation of health services.
12. Industrial relations in health sector.
13. Health management information system.

REPRODUCTIVE/FAMILY HEALTH (COM 403)

Course objectives

At the end of the course the students should be able to list and describe the concepts and inter-relationship of physical growth, developmental maturation, family structure, function, and roles together with promotive, preventive, curative and rehabilitative health principles and practices.

CONTENT

1. Concepts, components and objectives of reproductive/family health.
2. Determinants of reproductive/family health.
3. Measurements of reproductive/family health.
4. Sexual development.
5. Adolescent reproductive health.
6. Family planning.

7. Sexually transmitted infections.
8. Cancers in reproductive health.
9. Harmful practices, reproductive rights and gender issues.
10. Prevention of maternal deaths and disabilities.
11. Organization and evaluation of family health programmes.

SCHOOL HEALTH ADMINISTRATION(COM 404)

1. Objectives of School Health Administration.
2. Components of School Health Programmes.
3. The healthful School Environment.
4. Schools and the Community Health System.

INFERENTIAL BIOSTATISTICS(COM 405)

1. Introduction to probability theory and inductive statistics.
2. Tests of significance.
3. Normal Distribution Z-test.
4. Student's t-test.
5. Binomial test.
6. Chi Square test.
7. Association, Correlation and regression.

MEDICAL ETHICS (COM 406)

Course objectives

At the end of the course the student should be able to list and describe the code of conduct and professional responsibilities during the provision of services and research.

CONTENT

1. History and evolution of medical ethics
2. International code of medical ethics
3. Duties of doctors
4. The Nigerian Medical Council
5. Professional negligence/responsibility/confidentiality/misconduct
6. Ethics of medical research
7. Philosophical theories of ethics: deontological, Kantian etc

8. Status of embryo: embryo experimentation, gene technologies
9. Reproductive choices: abortion, in vitro fertilisation and other reproductive technologies
10. The doctor and the law: Judicial, Coroner's court

HEALTH EDUCATION (COM 407)

Course objectives

At the end of the course the students should be able to list and describe the health education processes including assessment, planning, implementation and evaluation of health education interventions.

CONTENT

1. The nature and scope of health education.
2. Current theories and models of health behaviour.
3. The health communication process.
4. Mass and interpersonal communication: theories, models and methods.
5. Audio-visual media and technology.
6. Community education, mobilization and development.
 1. Community development process.
 2. Community participation and social mobilization strategies.
 3. Community strategies for community mobilization.
4. Social marketing strategies.

500 LEVEL COURSES

OCCUPATIONAL HEALTH (COM 501)

CONTENT

1. Principles of occupational health.
2. History of/and landmarks in occupational health.
3. The environment of working places.
4. The interaction between work and health.
5. National and International Regulations relating to Occupational Health.
6. Health implications of lakes, Dams, and River Basins.

7. Functions of an occupational health service.
8. Discipline and areas of practice in occupational health.
9. Principles of disease prevention and hazard control in the industry.
10. Common Occupational Health Problems in Nigeria and their control.
11. The Health problems of Agricultural workers.
12. Diseases due to physical factors: heat and cold effects, ionizing and non-ionizing radiation, noise as a health hazard, pressure vibration and mechanical stress, light and darkness problems.
13. Mechanical environment and its problems: work ergonomics, the man-machine interface.
14. Occupational accidents: epidemiology and control of work accident.
15. Diseases due to biological agents: anthrax, bagassosis, farmers' hands, birds related diseases, hook-worm, brucellosis, leptospirosis, rabies.
16. Diseases due to chemical agents.
17. Occupational cancers.
18. Occupational lungs diseases.
19. Regulation and control of occupational health problems: occupational legislation, factory laws, workman compensation laws, labour laws, miscellaneous occupational legislations, organization of occupational health internationally and in Nigeria, health education in the industry, role of the labour union in occupational health services, ethics in occupational health.
20. Special issues in occupational health: special groups in occupational health, women, the disabled, special screen and programmes in occupational health, occupational psychology and services, agricultural occupational health, occupational health in mining, petroleum, road and air transportation migrant workers.

INTERNATIONAL HEALTH (COM 502)

Course objectives

At the end of the course the students should be able to list and describe the concepts of International Health and the role of International Health regulations and agencies in the control of internationally notifiable diseases.

CONTENT

1. History of international health.
2. Scope and content of international health.
3. Origins and development of international health.
4. International health regulations.
5. Port health services–objectives, organization and functions.
6. Role of international and non-government health agencies in promoting International health.
7. International aspect of communicable disease control
8. International travel and health.

EPIDEMIOLOGY OF COMMUNICABLE DISEASES (COM 503)

Course objectives

At the end of the course the students should be able to list and describe the skills required for the prevention of diseases of Public Health importance.

CONTENT

1. Terms and concepts used in communicable disease epidemiology.
2. The natural history of diseases: the cycle of health and disease.
3. Human immunity and factor of human immunity against diseases: herd immunity, etc.
4. Epidemiological classification of infectious diseases.
5. Diseases transmitted through the respiratory tract, viral, bacterial fungal and others Diseases transmitted through the gastro-intestinal tract.
6. Vector-borne disease.
7. Diseases of contact of active penetration.
8. Sexually transmitted diseases including human immuno-deficiency virus (H.I.V.) and acquired immune deficiency syndrome (A.I.D.S).
9. Nosocomial infections: definition, agents, site, sources and predispositions; prevention and control (surveillance) of nosocomial infections.
10. Surveillance and notification of diseases: locally and internationally notifiable diseases Arthropods of medical importance and their control.

EPIDEMIOLOGY OF ZOONOSIS(COM 504)

1. Definition and types of Zoonosis.
2. Prevention and Control of Common Zoonoses: Rabies; Brucellosis, Anthrax. etc.
3. Principles of Disease Control.
4. Principles of Disease Eradication.
5. Epidemiology and Control of locally endemic Communicable Diseases.
6. WHO special programme for Tropical Diseases: Malaria, Schistosomiasis, Filariasis, Leishmaniasis, Trypanosomiasis, and Leprosy.
7. Vaccines of Public Health importance:
 1. Types and characteristics.
 2. Storage requirements.
 3. Effectiveness.
 4. Mass Immunization Campaigns.
5. Epidemiology and control of Hospital infections.

EPIDEMIOLOGY OF NON-COMMUNICABLE DISEASES (COM 505)

1. Principles of Non-Communicable Diseases.
2. Prevention and control of Non-Communicable Diseases:
 1. Hypertension and common cardiovascular problems.
 2. Diabetes.
 3. Sickle cell anaemia.
 4. Cancers.
 5. Disorders of vision and hearing.
 6. Prevention of mental problems.
 7. Hereditary disorders.
 8. Road Traffic accidents etc.

PUBLIC HEALTH NUTRITION (COM 506)

Course objectives

At the end of the course the students should be able to list and describe the use of the science of nutrition to identify and intervene in health problems related to nutrition.

CONTENT

1. Food classes and classification.
2. Functions of major food classes.
3. Nutrition and health.
4. Infection and nutrition.
5. Epidemiology and control of common nutritional problems in Nigeria.
6. Nutritional values of common Nigerian foodstuffs.
7. Food policy, hygiene and toxicology.
8. Assessment of nutritional status.
9. Principles of therapeutic nutrition.
10. Nutrition education.

HEALTH ECONOMICS(COM 507)

1. Sources of Health Care funding.
2. National Health Care financing.
3. National Health Insurance Scheme.

REHABILITATIVE MEDICINE (COM 509)**Course objectives:**

At the end of the course the students should be able to understand the emerging concept of rehabilitative medicine and be equipped with knowledge and skills to identify, manage and prevent the health problems of the elderly.

CONTENT

1. The underprivileged members of society.
2. Rehabilitation: concepts and principles.
3. Definition and the need for rehabilitative medicine.
4. Classification and causes of Handicaps.
5. Economics of the problem.
6. Programme needs and goals.

7. Health care and programmes for specified disadvantaged population groups.
8. Identification, problems, and organization of specific programmes to meet their needs.
9. Social geriatrics:
 1. Definition and classification of the aged.
 2. Problems of the aged, its magnitude and identification of predisposing factors
 3. Development of relevant programmes
 4. Roles of agencies, government and non-governmental

RESEARCH METHODOLOGY (COM 510)

Course objectives:

At the end of the course the students should be able to have the knowledge and skills to carry out scientific research.

CONTENT

1. Formulation of Hypothesis.
2. Testing of Hypothesis.
3. Prospective/Cohort, Retrospective/Case.
4. Control, Longitudinal, Cross Sectional, and Intervention Studies.
5. Casual and Non Casual Association.
6. Estimation of Risk Odds Ratio (OR), Relative Risks (RR), Attributable Risk (AR).
7. Sampling techniques.
8. Design of medical and public health studies.
9. Questionnaire Design and Data collection, Analysis and Interpretation.
10. Critique of Scientific papers.
11. Techniques for proposal writing.
12. Design for medical and public health studies.

PROJECT WORK

Objective

To equip students on the application of knowledge and skill of research methodology, project development and write-up.

The project work will serve among other requirements as a pre-requisite for final examinations in the Department.

CONTENT

Each student will be expected to choose a topic for community based study. This is done under the supervision of a lecturer in the Department. Each student will submit 2 hard cover bound completed and certified project to the Department for assessment. Each project will be assessed by neutral lecturers in the Department and graded as part of continuous assessment.

Each student will be expected to defend his/her project work during the oral examination.

EDUCATIONAL POSTING/FIELD ACTIVITIES(COM 510)

This consists of lectures and guided public health educational visits to various public Health programmes including the following:

1. Environmental health services: water Treatment Plants \Water Works, sewage treatment Plants, Refuse Disposal Systems, markets, Abattoirs.
2. Community Welfare Services: Remand Home, Homes for motherless and handicapped children, prisons, school for the deaf etc.
3. Public Health Department: Public Health Laboratories, PHC departments of State and LGA, epidemiological unit.
4. Control of Communicable Diseases: Tuberculosis clinic, endemic disease clinic for sexually transmitted diseases.
5. Under-five clinic.
6. Occupational Health Services: visits to selected industries.
7. International Health Organisations.

600 LEVEL COURSES

PRIMARY HEALTH CARE (COM 601)

Course objectives:

At the end of the course the students should possess the knowledge, attitude and skill to:

1. Diagnose the health problems of a defined community.
2. Develop a Primary Health Care plan for the defined community.
3. Describe the 8 components of Primary Health Care.
4. Manage, monitor and evaluate the implementation of Primary Health services for a defined community.

CONTENT

1. Introduction: The principles of primary health care.
2. Equitable distribution.
3. Integration of services.
4. Appropriate technology.
5. Community participation.
6. Inter-sectoral cooperation.
7. Community Diagnosis:
 1. Methods in practical epidemiology.
 2. The conduct of demographic and morbidity services in a defined community.
 3. Methods of informal data collection.
 4. The structure and functioning of communities.
 5. Health care alternatives at the community level.
6. Introduction to health planning and management:
 1. Identifying and describing the health needs and problems of a defined community.
 2. Establishing health priorities for a defined community.
 3. Setting goals, objectives and targets for primary health services for a defined community.
 4. Formulating a primary health care plan.
 5. Drawing up a primary health care budget
6. Maternal health and family planning:
 1. Organizing ante-natal care for maximum coverage of the community.
2. Health Education

1. The identification of learning needs.
 2. Planning health education for individual groups and communities.
 3. The principles of communication.
 4. Selection and production of appropriate audiovisual aids.
1. Environmental sanitation:
 1. Identification of an appropriate water supply for a defined community.
 2. Identification of an appropriate method of sanitation for a defined community.
 3. Promoting self-help projects at the community level.
 1. Locally endemic diseases:
 1. The epidemiology of locally endemic disease.
 2. Appropriate management and prevention of locally endemic diseases at the Primary Health Care level.
 1. Essential drugs:
 1. The essential drugs approach.
 2. An essential drugs list for Primary Health Care in Nigeria: What should be included.
 3. Estimating the essential drug needs of a defined community.
 4. Administering an essential drugs policy at the level of Primary Health Care services for a defined community.

COMMUNITY DIAGNOSIS(COM 602)

Objectives

To introduce the students to the community and sensitize them to community health needs problems whilst also displaying to them the ecological interplay between man and his total environment.

Activities.

The students will determine the community needs by Identifying and interviewing important people in the community using Questionnaires, key informant Interviews, Focus Group Discussion, clinical and laboratory examinations.

They will be expected to do the following:

1. Produce a simple map of the area.

2. Produce a simple census and construct the social demographic characteristics of the community.
3. Survey the existing social and health facilities available in the community.
4. Determine the main health problems of the community and associated factors.
5. Carry out special health interventions.
6. Produce and present reports.

THE CURRICULUM IN INTERNAL MEDICINE

INTRODUCTION

The course in Medicine is strenuous and the syllabus is as wide as the diseases afflicting man. However, in the interest of orderly progression of the learning process, it is best to divide it into distinct stages which allow the student time to assimilate and consolidate his newly acquired knowledge and skills before progressing to the next stage.

OBJECTIVES

- a) The objective is to groom medical students in all aspect of internal medicine, with due and appropriate emphasis on local medical problems so as to prepare them for practice in Nigeria mainly, without compromising international standards of medical practice. Specifically;
 1. The student should be able to apply standard clinical methods in examining patients. In this regard he/she should be able to take a good history, perform a full physical examination and elicit physical signs, carry out simple side room tests, understand and explain the meaning of normal and abnormal laboratory results.
 2. The student should draw meaningful conclusion from (1) above, the student should be able to acquire information necessary for the recognition of certain diseases, synthesize the available data (from history, physical examination, side room tests, laboratory results, X-rays etc.) and attempt to arrive at a working diagnosis, decide on other appropriate further investigations in case of doubt, attempt to relate the working diagnosis to the social, economic and environmental aspects of the disease and plan appropriate line of management of the patient.
 3. The student should be capable of establishing good working relationships with all those involved in the care of the patient; team-work should be the watchword.

4. The doctor trained under this curriculum should recognize and accept the responsibilities of other workers in the health team, understand his/her relationship with each member of the health team, assume some responsibility for his own training, so as to enable him develop the habit of continuing his own education, a process which should entail constant self-assessment.

Teaching methods:

1. Theory: This shall consist of:

Formal lectures: These are taken lectures (about 5 per body system) and do NOT cover all the requirements for the body system but students will be expected to make up for the rest through independent learning.

Group Teaching: Tutorials (student oriented) including Graphics

Seminars (topic oriented)

Independent Learning: Class Project;

Audiovisuals

Books and Journals

2. Practical: (see Curriculum content).

Students will be exposed to clinical medicine as shown bellow

CURRICULUM

An outline of the clinical curriculum in (internal) Medicine is as follows:

Phase I. Introduction to Clinical Medicine MED 401& 402	2 weeks
Phase2. Junior Clerkship MED 403- 409	8 weeks
Phase3. Intermediate Clerkship MED 501- 508	8 weeks
Phase4. Senior Clerkship MED 601 – 604	8 weeks
Psychiatry MED605	4 weeks

COURSE OUTLINE

400 LEVEL

SN	COURSE CODE	COURSE TITLE
1.	MED 401	Introduction to Clinical Medicine I
2.	MED 402	Introduction to Clinical Medicine II
3.	MED 403	Cardiology I
4.	MED 404	Respiratory Medicine I
5.	MED 405	Gastroenterology
6.	MED 406	Haematology (Clinical)
7.	MED 407	Metabolic and Endocrine Medicine
8.	MED 408	Neurology I
9.	MED 409	Nephrology I

500 LEVEL

SN	COURSE CODE	COURSE TITLE
1.	MED 501	Cardiology II
2.	MED 502	Respiratory Medicine
3.	MED 503	Gastroenterology II
4.	MED 504	Nephrology II
5.	MED 505	Rheumatology
6.	MED 506	Clinical Immunology
7.	MED 507	Tropical Medicine and Infections

600 LEVEL

SN	COURSE CODE	COURSE TITLE
1.	MED 601	Special Topics & Neurology II
2.	MED 602	Dermatovenereology
3.	MED 603	Medical Ethics & Jurisprudence
4.	MED 604	Traditional Medicine
5.	MED 605	Psychiatry

CURRICULUM CONTENT

Phase I Introduction to Clinical Medicine

Introduction to Clinical Medicine I - MED 401

3. A Course of lectures on basic clinical skills and simple clinical disorders (5 hours a week).
4. Demonstration on how to elicit basic physical signs.
5. Emphasis on technique and general approach to the patient. Tutorials on elementary clinical medicine with emphasis on applied basic medical sciences, (including basic principles of radiology).

Introduction to Clinical Medicine II - MED 402

1. Introduction to various health workers and their various functions, with clear emphasis on where the medical student fits in.
2. Introduction to basic side-room tests on urine, stool, sputum and blood.
3. Basic therapeutic principles as applied to common disorders.

Medicine Phase II (Junior Posting)

Students are by now expected to be well versed in basic clinical skills. Thus this period (referred to sometimes as Junior Medical posting) should be devoted to indepth lectures, ward (bed-side) teaching, and tutorials. Students should be able to clerk patients fully.

Suggested subjects to be covered by lectures/tutorials include;

1. Cardiology I - MED 403

Relatively basic cardiovascular diseases: heart failure (diagnosis and management), rheumatic heart disease, infective endocarditis, blood pressure (mechanisms, treatment, prevention), pericarditis (constrictive pericarditis), pericardial effusion, cardiac tamponade, disorders of cardiac rhythm – introduction to ECG.

2. Respiratory Medicine I - MED 404

Pneumonia (pneumococcal, staphylococcal, H. Influenzae), tuberculosis, airways disease (asthma, alveolitis etc.), some common complications of chest diseases e.g. pleural effusion, emphysema, pulmonary fibrosis, pleurisy etc.

3. Gastroenterology I - MED 405

Oesophagitis, gastro-enteritis (acute, chronic), peptic ulcer disease (with complications), cholecystitis, pancreatitis (acute and chronic), jaundice (causes, management, types of), hepatitis: acute infective (type A, E), chronic (type B, C, D) etc., Hepatoma (prevalence, causes), ascites (causes, management), abdominal masses, gastrointestinal haemorrhage, abdominal pain, malabsorption syndromes and GIT infections e.g. dysentery (see under infections).

4. Clinical Haematology - MED 406

Anaemia (all types, causes, investigations, management), splenomegaly (causes e.g. leukaemias TSS etc.), the leukaemias, Hodgkins disease, myeloproliferative disorders, haemoglobinopathies.

5. Metabolic and Endocrine Medicine - MED 407

Hypothalamic – pituitary – adrenal-thyroid axis, disorders of the hypothalamus, disorders of the pituitary gland, disorders of the thyroid gland, disorders of calcium metabolism, fluid and electrolyte balance, diabetes mellitus, inborn errors of metabolism, gout and Wilson's disease.

6. Neurology I - MED 408

Basic concepts, coma (causes, management), meningitis (CSM, H. influenza, Tuberculosis, pneumococcal), cerebrovascular accident (including stroke), the cranial nerves and cord compression.

Nephrology I (Genitourinary Medicine) MED 409 1 Unit Urinary tract infection, pyelonephritis, glomerulonephritis, acute and chronic renal failure, the nephrotic syndrome and infections e.g. schistosomiasis (see under infections)

Medicine Phase II (Intermediate Posting) 500 Level

The student has by now acquired a fair amount of basic knowledge of most of the common systemic disorders. The objective of this posting is to consolidate his/her knowledge. Accordingly emphasis should be directed towards encouraging him to go into greater details and to acquire more clinical skills. She/he should also be able to discuss his/her patients intelligently. Additional topics to be covered during this posting should include:

7. Cardiovascular System II - MED 501

The peculiar added heart sounds such as: Murmurs of valvular heart disease; systolic murmurs (AI, AS) etc. Austin-flint murmur, machinery murmur; pericardial friction rub; opening snap of MS etc., the more subtle signs of subacute infective endocarditis, petechial and splinter haemorrhages, Osler's nodes, clubbing, Roth's spots etc., the cardiomyopathies (congested, including peripartum cardiac failure, restrictive, endomyocardial fibrosis; hypertrophic).

8. Respiratory System II - MED 502

Carcinoma of the lungs, cryptogenic fibrosing alveolitis, the pneumoconioses.

9. Gastroenterology II - MED 503

Differential diagnosis of peptic ulcer disease, cholecystitis and pancreatitis leading to a consideration of diagnostic procedure of help, e.g. laboratory tests, cholecystogram, endoscopic retrograde cholangiopancreatography (ERCP), chronic active hepatitis, primary biliary cirrhosis, Crohn's diseases and ulcerative colitis.

10. Nephrology II - MED 504

Immune-complex-mediated kidney disease (e.g. quartan malarial nephropathy), obstructive uropathy.

11. Rheumatology - MED 505

The sero-negative arthritides the sero-positive arthritides, rheumatoid arthritis, Sjogren's syndrome, ankylosing spondylitis, enteropathic arthropathy, osteoarthritis (degenerative joint disease). The connective tissue disorders: systemic lupus erythematosus, systemic sclerosis (scleroderma), mixed connective tissue disease, dermatomyositis/polymyositis, giant cell arteritis, lessons on rehabilitation.

12. Clinical Immunology - MED 506

Students would have been exposed to basic immunology and immunopathology during laboratory medicine postings. The objective here is therefore to expose them to clinical aspects of immunology. Topics to be

covered: The host response to infection, immunology of infections, schistosomiasis, hepatosplenic hyperactive malarial splenomegaly (previously known as tropical splenomegaly syndrome, TSS) quartan malaria nephropathy (QMN), hepatitis, virus infections, tumour and transplantation immunology, the HLA system, tumour immunology, autoimmunity and autoimmune disease, consolidation of basic immunologic techniques in diagnosis of disease e.g. widal, bacterial antigens, Hepatitis B surface antigen (HBS Ag), alphasfetoprotein, cellulose acetate electrophoresis etc. Introduction to monoclonal antibodies and hybridoma technology.³⁸

13. Tropical Medicine and Infections - MED 507

Pyrexia of unknown origin (PUO), Malaria, Pneumococcal infection, Streptococcal infections, H. influenzae infection, Meningococcal infection, Typhoid fever, Cholera, Tetanus, Tuberculosis, Leprosy (see under dermatology), Spirochaete infections, Fungal infections, Amoebiasis, Schistosomiasis, Trypanosomiasis, Leishmaniasis, Filariasis, Guinea Worm infestation, Rabies, Septicaemia.

Phase3 (Senior Posting) 8weeks

This is the final medicine posting. The objective should be to consolidate what the medicine and psychiatry student had already learnt in the previous postings, but additional topics should also be covered.

14. Special Topics and Neurology II - MED 601

15. Neurology Autonomic neuropathy, Peripheral neuropathy, Viral infections of CNS, Cerebral abscess, Demyelinating disease, Epilepsy, Cord compression, Brain tumours, subacute combined degeneration etc. **HIV-AIDS** including epidemiology, pathogenesis, features – primary, asymptomatic or symptomatic infections; diagnosis, opportunistic infections such as tuberculosis and candidiasis, prevention, management and control.

16. Sexually Transmitted Infections: include epidemiology, pathogenesis, features, diagnosis, prevention, treatment and control of – gonorrhoea, chancroid, chlamydia, syphilis, trichomonas, gardnerella, candida, herpes genitalis, human papilloma virus, pelvic inflammatory disease and pubic lice. Syndromic management of STIs. Contact management. Etiologic management of STIs.

17. Dermatovenereology - MED 602

Objectives:

At the end of their training medical students that are trained in any Nigerian Medical School should:

1. Know the basic embryology, anatomy, physiology and functions of the skin and its appendages.
2. Know the normal and abnormal flora of the skin and the Mucosa;
3. Understand the pharmacokinetics and absorption of drugs through the skin and the mucos.
4. Understand the rationale for topical, systemic, physical, surgical and psychotherapy.
5. Be acquainted with and know how to use drugs, commonly used in common skin conditions.
6. Furthermore he/she should be able to diagnose and, to where possible manage effectively the following general dermatological conditions: Tinea capitis, corporis, pedis cruris, Pityriasis versicolor, Pityriasis Rosea, Superficial candidiasis, Impetigo, furuncle, carbuncle, folliculitis, erysipelas, Sarcopsis barbae, Scabies, pediculosis, Uncomplicated leg ulcers, Buruli Ulcer, Contact eczema/dermatitis, microbial eczema, irritant dermatitis, dyshidrotic eczema, atopic eczema, seborrheic eczema, Acne vulgaris, Erythema multiformis, Exanthema, erythematosis, Quincke's oedema, urticaria, prurigo simplex, Neurodermatitis vitiligo, Urticaria, Pediculosis pubis, capitis and corporis Lichen planus, Psoriasis, Measles, chicken pox, viral warts, molluscum contagiosa, herpes simplex, herpes zoster.
7. He/She should be able to recognize, diagnose and treat the following commonly encountered dermatological problems in the tropics: Leprosy and reactions, Onchocerciasis, Filariasis, Dracunculiasis, Deep fungal infections of the skin, Nutritional disorders of the skin.
8. He/She should be able to diagnose the following conditions: Contact dermatitis, Drug reaction, Inhalative and nutritive allergic reactions, Connective tissue diseases, SLE, scleroderma.
9. Be able to recognize, diagnose correctly and treat the following common sexually transmitted diseases: Gonorrhoea and non gonococcal urethritis, uncomplicated syphilis, Trichomoniasis, Chancroid, Lymphogranuloma Venereum, granuloma Inguinale and Candida vaginalis.
10. Be able to recognize the relationship between external manifestation and common internal disorders.
11. Be able to manage skin disease on community basis
12. Be able to recognize its limitations and refer cases promptly to specialist attention with adequate information on patients.
13. Be able to recognize and refer promptly clinical manifestations of AIDS
14. Be able to perform simple dermatological investigations such as: Taking of skin scraping, Staining slide for fungus identification, Planting of scraping and swabs from the skin for culture, Skin-snip for filarial diagnosis, Read slides for fungal infection and other common parasitic infections of the skin.

Take urethral and vaginal swabs correctly for microscopic and culture examination. Take skin biopsies correctly and preserve for histopathology.

Formal lectures shall be given to students on the following main subjects: Embryology and Anatomy of the skin and its appendages. Physiology of the skin, appendages Histochemistry of skin. Superficial and deep fungal infection, bacteria infection of the skin including parasitic infection of the skin. Papulo-squamous skin disease. Connective tissue diseases. Common sebaceous gland diseases, common non-infectious diseases of the hair, dermatitis, contact eczema toxic dermatitis, dyshidrotic leprosy. Viral infection of the skin, sexually transmitted diseases (including AIDS) pigmentary skin disorders, external manifestation of systemic diseases.

1. Medical Ethics and Jurisprudence - MED 603

History and Philosophy of Medical Ethics Case Studies. Presentation of real cases from NMC files. Relationship between Religion and medical ethics influence of Socio-Cultural values on medical ethics. Ethical issues involved in Primary Care, Ethics of Dental Practice, Relationship between the doctor and his patients. Relationship between the doctor and his colleagues. Relationships between the doctor and the medical team, Business connections and contracts, Nigeria Medical and Dental Council, medical ethics of the examination and care of Women. Ethical issues involved in contraception, sterilization and infertility. Ethical issue involved in sex change and test tube babies. Elements of informed consent in medical practice. Elements of informed consent in Research Medical ethics and relation to the dead and the dying.

Guiding Principles on Medical Ethics and human Rights: Including history and philosophy; case studies from files of Medical and Dental Council; relationship between religion, socio-cultural values and medical ethics.

Respect for Persons: Including respect of personal integrity (use of chaperons). Conscientious, moral or religious beliefs of persons; own beliefs; treating patients as persons not as cases. Extended family; polygamy (polygyny and Polyandry), widow inheritance and structural adjustment programs.

Health Care of Vulnerable and Disadvantaged Groups: Including children; adolescents; women; the elderly; refugees; ethnic minorities; asylum seekers; indigenous peoples and immigrants.⁴³

Confidentiality. Requests by third parties: Including pre-employment medical reports; court orders to disclose confidential medical information. Parents Rights to Information; Counseling (Knowledge and Techniques); Informed Consent to Medical Interventions. Medical Emergencies. Ethical Attendance upon persons held in detention. Competence to practice. Relationship with health professional colleagues, other health

workers and traditional healers/birth attendants. Responsibility to the community. Health promotion and preventive medicine. Transplantation. Medical Research.

The six human rights instruments related to “The right to Health”.

International Convention on Economic, Social and Cultural Rights. International Convention on Civil and Political Rights. International convention on the elimination of all forms of racial discrimination. Convention on the elimination of all forms of discrimination against women. Convention against torture and other cruel, inhuman or degrading treatment or punishment. Convention on the rights of the child.

2. Traditional Medicine - MED 604

This should embody history of medicine, including such topics as the traditional barber surgeons. Topics in ethnopharmacy and homeopathy should also be taught here.

MED 605: MBBS CURRICULLUM IN PSYCHIATRY

Overview

The Department of Psychiatry teaches clinical students at 600 Levels. It relies on biological and scientific basis of modern Psychiatry and teaches all aspects of neurological medicine and molecular biology as it applies to psychiatric research.

Objectives

At the end of the course the students would be able to:

1. Understand modern definition of psychiatry and psychiatric ailments.
2. Appreciate the differences between biological and social psychiatry and place maximum emphasis on modern biological psychiatry.
3. Perform simple and complex psychiatric examination and make diagnosis at the same time as prescribe management of psychiatric ailments.
4. Understand the computer uses in modern psychiatry.

Evaluation

Psychiatry is examined with medicine in the part IV (Final) Professional MBBS Examination before qualification. It is tested using MCQ, essay and clinical cases.

Psychiatry

Course objectives

At the end of the course the student should be able to develop the skill for psychiatric examination, make diagnosis and prescribe treatment and other aspects of management of the psychiatrically ill.

Teaching and learning methods

1. Lecturers
2. Tutorials
3. Problem based Learning.

Evaluation

MCQ (True-False items, Essay, Practical)

Content

Medical Psychology:

1. Introduction to psychiatry
2. History of psychiatry
3. History taking in psychiatry
4. Mental state examination
5. Psychopathology I
6. Psychopathology II
7. Depression and management of depressive disorder
8. Mania and management of mania
9. Schizophrenia I
10. Schizophrenia II
11. Post-partum psychosis
12. Misuse of alcohol and the related illness
13. The use of other substance and their management
14. Psychopharmacology I
15. Psychopharmacology II
16. Somatisation, other somatoform disorders
17. Conversion disorders
18. Hyperventilation tetany
19. Panic disorder
20. Effort syndrome
21. Personality disorders
22. Epilepsy and management of epilepsy
23. Mental retardation
24. Investigations in psychiatry
25. Trans-cultural Psychiatry
26. Psychiatric emergencies and management
27. Suicide, attempted suicide
28. Delirium
29. Dementia
30. Defense mechanism
31. Research methodology

32. Psychosomatic illness:
 33. Forensic Psychiatry
 34. Sleep disorders
 35. Sexual disorders
 36. Childhood Psychiatric disorders
 37. Psychotherapy
 38. Factitious disorders
 39. ECT, Obsessive disorders
 40. Uncommon Psychiatric disorder
41. Molecular biology in Psychiatry
42. Ethics in Psychiatry
43. Clinical Psychology
44. Basic computer science in Psychiatry.

MBBS CURRICULLUM IN OBSTETRIC AND GYNAECOLOGY

Overview

This will be done over a 16-week period. There are two postings in Obstetrics and Gynaecology. The first or Junior posting (8 weeks) is to provide a survey of the field and introduce content and vocabulary that would be used in the field. At the Senior (8 weeks) postings. The students will have the opportunity to apply much of the information obtained in the Junior posting course. With a good general background the previous experience in the Clinical setting, the Students will be able to take an active part in the care of the Gynaecological and Obstetric patient.

Objectives

A. General

At the end of the course the students will be able to:

1. Manage the common Gynaecological disorders of the human female.
2. Appreciate that the environment, including poor hygiene can contribute to a number of these disorders.
3. Appreciate that ignorance, poverty and poor medical care also contribute to some of the patient's illnesses.
4. Manage normal and complicated pregnancies and conduct normal delivery.

B. Attitudes

The student should:

1. Be sympathetic to the patient's complaints and spare some time to listen to the patients.
2. Avoid pre-conceived ideas of the patient's ailments while she is narrating her complaints.
3. Present himself/herself in such a way that the patient feels so confident that he/she holds nothing back.
4. Develop the habit of reading books and journals in gynecology and obstetrics to acquire knowledge and be able to question some of the "facts" or surgical procedures he/she is taught.

C. Acquisition of Skill

1. Be able to extract and analyse the patient's symptoms so that by the time he completes the history taking, he has narrowed down the possible diagnosis.
2. Then proceed to conduct an adequate gynaecological or obstetrics examination to confirm or dismiss the suspicions he had during history taking.
3. Be able to request specific investigations, which will enable him to make a definite diagnosis and serve as a baseline before commencing treatment.
4. Detect abnormalities by keen observations in the clinics and wards.

Teaching and learning methods

Teaching in the department is via lectures provided mainly by power point projections. Ward teaching and surgical sessions in theatre are available to learn operative gynaecology and obstetrics. The students are also encouraged to come to labour room for further instructions and learning.

Evaluation

Multiple choice questions, together with essays and electronic and none electronic OSCA; this augments normal clinical examination. Professional examination is conducted together with community Health and Paediatrics.

500 LEVEL CLASSES

Obstetrics and Gynaecology (OBG)

Introductory Gynaecology	OBG 501
Reproductive Physiology	OBG 502
Labour, Puerperium & the Neonate	OBG 503
Gynaecology Clinics	OBG 504
Obstetrics Clinics	OBG 505
Special Topics and Clinics	OBG 506

Course Contents (Lectures/Tutorials)

Introductory Gynaecology - OBG 501

1. Anatomy of the female genital tract and the pelvic floor
2. Puberty, Menstrual cycle,
3. Variations in menstrual cycle, including dysfunctional uterine bleeding.
4. Development of the female genital tract: Sex determination, intersexuality, Congenital abnormalities.
5. Tubo-ovarian infection, acute and chronic.
6. Over-fertility and Family Planning. Infertility – Male and Female.
7. Menopause.
8. Utero-vaginal prolapse.
9. Control of Micturition: incontinence of urine, genuine stress incontinence, detrusor instability, overflow incontinence.
10. Vesico-vaginal fistula.
11. Retention of urine.
12. Third degree perineal tear and recto-vaginal fistula.
13. The use of hormones in gynaecological practice.
14. Screening for gynaecological malignancies.
15. Carcinoma of the cervix.
16. Benign and malignant diseases of the uterus: Uterine fibroid, Adenomyosis, Carcinoma of the endometrium.
17. Trophoblastic diseases: Benign and Malignant.
18. Amenorrhoea – Primary and Secondary.
19. Sexually transmitted diseases.
20. Chronic vulva diseases.
21. Endoscopy in gynaecological practice.
22. Ectopic pregnancy and other acute gynaecological emergencies.
23. Principles of pre-operative and post-operative care.

Reproductive Physiology and Disorders of Pregnancy - OBG 502

1. Weight gain in pregnancy.
2. Circulatory and respiratory changes in pregnancy.

3. Renal and Alimentary changes in pregnancy.
4. Metabolic changes in pregnancy.
5. Immunology of reproduction.
6. The placenta, amniotic fluid.
7. The physiology of lactation.
8. Anaemia in pregnancy: Aetiology, malaria and complications, prophylaxis and treatment including blood transfusion.
9. Haemoglobinopathies.
10. Hypertensive Disorders of pregnancy.
11. Pre-eclampsia and Eclampsia, essential hypertension, chronic renal disease, Diabetes Mellitus, Heart and renal diseases.
12. Thyroid diseases.
13. Acute renal failure in Obstetrics and Gynaecology.
14. Infections – Meningitis, acute Pyelonephritis, tuberculosis, diarrhoeal diseases, Tetanus. Bleeding in early pregnancy.
15. Antepartum Haemorrhage: placenta praevia, Ante-partum haemorrhage: Abruption placenta;
16. Coagulation disorders in Obstetrics.
17. Factors interfering with fetal oxygenation:
18. Maternal and placental; intra-uterine growth retardation: postmaturity. Assessment of fetal wellbeing and placental function in pregnancy and labour: identification of the fetus at risk.
19. Abdominal pain in pregnancy.

Labour, Puerperium and the Neonate - OBG 503

1. Physiology and conduct of normal labour.
2. Uterine action: normal and abnormal; the use of partogram in early detection of abnormal labour.
3. Trial of labour; Management of prolonged labour.
4. Malpresentation of fetal head: Occipito-posterior position, brow, face.
5. Obstructed Labour: Causes, diagnosis, principles of management.
6. Rupture of the uterus.
7. Breech delivery: Conduct and hazards.
8. Twin pregnancy.
9. Management of twin delivery.
10. The retained second twin.
11. The epidemiology of prematurity and the conduct of premature labour.
12. Induction of Labour.
13. Prevention and treatment of post-partum haemorrhage.
14. The use of ergometrine and other oxytocic agents.
15. Management of oblique and transverse lies: prolapse of the cord. Puerperal morbidity – causes investigations and control.
16. Maternal Mortality.

17. Biological and social factors in obstetrics – age, parity, stature, smoking, ethnic factors etc. Physiology of puerperium including lactation.
18. Postnatal examination.
19. Conduct of labour in the presence of maternal medical diseases – Haemoglobinopathy, anaemia, heart diseases, diabetes mellitus, chronic chest disease and liver failure.
20. Blood transfusion in obstetrics.
21. Organisation of maternity services for a community.
22. Radiology in obstetrics and gynaecology.
23. Operative deliveries – forceps delivery ventousedelivery, caesarean section.
24. Destructive procedures.
25. Special problem of anaesthesia in obstetrics.
26. Methods of pain relief in labour.
27. Prenatal and post-partum detection of congenital abnormalities of the new born.
28. The asphyxiated infant, resuscitation and management.
29. Intracranial birth injuries.

Gynaecology Clinics - OBG 504

1. Approach to the gynaecological patient in the clinic.
2. Symptoms and clinical signs in gynaecology.
3. History taking in gynaecology.
4. General physical examination.
5. Pelvic examination.
6. Clinic based procedures – Pap smears, high vaginal swabs, cryosurgery, transabdominal and transvaginal ultrasonography, diagnostic hysteroscopy, colposcopy, hysterosalpingography.

Obstetrics Clinics - OBG 505

1. Layout of the antenatal clinic.
2. Approach to the obstetric client in the antenatal clinic.
3. Health education of the pregnant woman.
4. Registration/ booking of the pregnant woman.
5. History taking in the pregnant woman.
6. General physical examination.
7. Physical examination of the pregnant uterus and its contents.
8. Routine laboratory investigations.
9. Clinical pelvimetry.
10. Risk assessment of a pregnancy.
11. Special clinical procedures: obstetric ultrasonography, Pap smears, chorionic villus sampling, X-ray pelvimetry.
12. The postnatal clinic.

Special Topics and Clinics - OBG 506

1. Sexual History – Taking: Effective communication techniques, barriers to effective communication, patient – centred interviewing, history taking skills.
2. Patient education: Principles of effective patient education, patient motivation and behaviour change.
3. Patient counselling, informed consent, options in counselling, decision – making and managing emotions.
4. Adolescent Sexual and Reproductive Health: Puberty and abnormalities, adolescent behaviour in Nigeria.
5. Initiation of sexual activity, unplanned pregnancy, sexual violence and abuse.
6. Harmful traditional practices- female genital mutilation, puberty initiation rites, male child preference, voluntary/ forced early marriage, sexuality education (including courtship and marriage preparation).
7. Adolescent – friendly services.
8. Consequences of teenage pregnancy.
9. High risk pregnancies
10. Safe Motherhood: Include physiology and disorders of pregnancy; Objectives and Conduct of antenatal Care; Normal and Abnormal Labours, and care: Pain control in Labour; Maternal Morbidity and Mortality; Evidence-Based Emergency Obstetric Care; Postnatal Care; Perinatal Mortality; Resuscitation and Care of the Newborn; Exclusive Breastfeeding; Immunisation.
11. Family Planning: Including History, objectives, benefits and conduct of Family Planning; Counselling Technique; Choosing a Contraceptive- Effectiveness, safety and other considerations; Traditional and Natural methods; barrier and Hormonal methods; Intrauterine devices; emergency contraception; sterilisation; and menstrual regulation. Reproductive health of elderly including menopause.
12. Abortion and Complications: Include definition of abortion, causes, types, clinical features, diagnosis, complications and treatment.
13. Medical and surgical methods of abortion.
14. The provisions of Criminal and Penal codes on abortion.
15. The Abortion Law, its defects and consequences.
16. Adoption and fostering.
17. Management of complications of unsafe abortion.
18. Post abortion care; emergency treatment of incomplete abortion, including use of the MVA; post abortion family planning and linkage with other reproductive health services. Infertility Management: Including epidemiology, causes and prevention.
19. Investigation and treatment of infertility; frigidity and erectile dysfunction, assisted conception techniques, fostering and adoption.
20. Sexually Transmitted Infections: Include Epidemiology, Pathogenesis, clinical features, diagnosis, prevention and control of gonorrhea, chancroid,

- chlamydia, syphilis, trichomonas, gardnerella, candida, herpes genitalis, human papilloma virus, pelvic inflammatory disease and pubic lice.
21. STIs and pregnancy, delivery of the newborn.
 22. Syndromic and etiologic management of STIs.
 23. Contact management.
 24. HIV/AIDS: Include epidemiology, pathogenesis, clinical features, diagnosis, prevention and control, HIV and pregnancy; prevention of mother-to-child transmission (vertical transmission) and infant feeding. Anti-retroviral therapy, pre and post test counseling management and care (including home based care).
 25. Oncology Clinics / Screening for Cancers: Epidemiology, causes, features, prevention and treatment of cancers of: vulva, vagina, cervix, uterus, ovary and breast.
 26. Self-examination of breasts.
 27. Cervical cytology, colposcopy.
 28. Visual inspection of acetic acid-smear cervix (VIA) and visual inspection of acetic acid-smear cervix under magnification (VIAM).

MBBS CURRICULUM IN PAEDIATRICS

Medical student's postings in paediatrics is at Level 500, divided into Junior Posting (8 weeks) and Senior Posting (8 weeks).

Aims and Objectives

1. To introduce the students to the global principles and practice of Paediatrics and Child Health with particular emphasis on practice in the Tropics.
2. To equip the students with the cognitive knowledge, technical skills and clinical judgment to enable them achieve some measure of competence in the practice of Paediatrics.
3. To enable the students have a good working relationship with all those involved in health care delivery especially with respect to maternal and child health, and to appreciate the need for this team work.

At the end of the course, the student should be able to utilize the skills, and attitude he has acquired to perform the following:

take and record a good history, carry out a thorough physical examination of a child, demonstrate common abnormal physical signs and interpret them, carry out simple side laboratory tests, recognise childhood disease with particular reference to those prevalent in the Nigerian environment, formulate a reasonable diagnosis based on history and physical examination, confirm his diagnosis by selecting appropriate investigations, have a sound knowledge of therapeutics in order to be able to treat his patient, manage common paediatric emergencies and know when

and where to look for help and refer them safely to the care of a specialist at the right time.

Course Content

Clinical Clerkship I: Focuses on History taking and physical Examination.

Clerkship II: There are two-week rotations through EPU, and Ward, Nursery and ORT Clinic.

Students are expected to be in assigned clinical areas from 8.00 am-4.00pm except for those in the Consultant Clinics.

Complete write up on two patients per clinic area (other than the Clinics) followed up from admission till disposition, should be submitted to the consultant in charge of the clinical area who should assess the write up.

Clerkship III: This Consist of:

1. Sub-internship rotation through EPU
2. Rotation through:
 1. Microbiology and Clinical Bio-Chemistry Laboratories.
 2. X-ray, Ultrasonography and ECG
3. Clinical presentation and practical procedures are carried out during the month (week 16).

The Minimum number of procedures that the students are required to performed is as follows:

1. Lumbar Puncture: x5
2. Scalp/Peripheral i.v infusion x5
3. Venepuncture x5
4. Watching and assisting during exchange blood transfusion (EBT) x5
5. Nasogastric Tube Insertion x5
6. PCV/Haematocrit Checks x5
7. Urinalysis x5

It is mandatory for all students during their posting to attend and contribute to scheduled departmental activities (e.g Grand- round on Wednesday and Case Management Conferences).

Evaluation:

1. Performance in the various areas mentioned above is continuously assessed. This will constitute 30% of the overall evaluation.
2. End of posting examination during week 16 consists of theory multiple choice (True or False one in Five) short answers questions, including clinical and orals.

Examination will cover the entire subjects under lecture series. The result is normally released within one week after the students have written the examination.

300 Level

PAE 301	Introduction to Paediatrics
PAE 302	Nutrition, Growth and Development
PAE 303	Child Health and Primary Care
PAE 304	Cadiovascular and Respiratory
PAE 305	Genitourinary and G1 Tract
PAE 306	Endocrine and Metabolic
PAE 307	CNS, Muscles and Bones
PAE 308	Diseases of the Blood
PAE 309	Specific Infections and Genetics
PAE 310	Paediatrics Oncology
PAE 311	Neonatology

1. Introduction to Paediatrics - PAE 501

The aim is to provide the students with basic knowledge of the discipline for general practice. These lectures cover a wide range of selected topics in paediatrics to include general principles and practice of paediatrics, preventive paediatrics, growth and development (from infancy to adolescence) and pathological states in paediatrics in all systems. Clinical Paediatrics: The art of paediatric patient clerking is taught in the outpatient clinics and in the wards. A student should be expected to clerk and if possible present at least 6 cases per posting. Instructions in diagnostic and therapeutic skills and clinical procedures i.e. venopuncture, setting up of intravenous infusions, performance of lumbar punctures, resuscitation of patients in respiratory or cardiac failure, bone marrow aspiration, exchange

blood transfusions. Each student is expected to perform simple laboratory procedures like CSF, urine and stool microscopy and chemistry and therapeutic and diagnostic skill including basic principle of Radiology, other imaging techniques on specimens obtained from his/her patient. The student, on ward round day, should present the patient he/she clerked to the Consultant and follow up the patient's progress till discharge. He/She is also expected to write a discharge summary.

2. Nutrition, Growth and Development - PAE 502

Attendance at the Nutrition Clinic is compulsory for instruction on the nutritional needs of normal children and those with disorders like protein-energy-malnutrition, marasmus, micronutrient deficiencies. Technical skills of anthropometry are taught and instructions on the use and value of the growth charts and on factors affecting growth and development of children are highlighted: Anthropometry, Factors affecting growth and development, Failure to thrive babies and causes, Puberty, Adolescence and its problem. Rights of the Child: Initiation of Sexual activity, sexual violence and abuse. Harmful practices – Female Genital mutilation, Forced Early Marriage and puberty initiation rites. Convention on the Rights of the Child. National Policy on Adolescent Health. Peculiar problem of the Girl Child. HIV/AIDS: Neonatal infection; primary, asymptomatic or symptomatic infections; paediatric dermatology; prevention and control.

3. Child Health and Primary Care - PAE 503

Students should visit Child Health Clinics and are instructed on the care of healthy infants. They also must pay visit to the Under Five Clinics (NPI). There they are also expected to individually perform such function as: immunization procedure, assessment of nutritional status of children, anthropometry, and giving nutritional advice to mothers assessment of status of children. Seminars are conducted on environmental and social factors related to child health. Students are also introduced to prevention and management of physical and mental handicap in children. Others include: Poisons and Accidents, kerosene ingestion, household accidents, drug poisoning, bites. Child Health: immunization in general for the Nigerian child, under five clinics (NPI), weaning – normal and abnormal habits.

4. Miscellaneous: the Cardiovascular and Respiratory System - PAE 504

Examination of the CVS. Congenital heart diseases, acquired heart diseases. Heart failure in infancy and childhood, acute infections of the respiratory tract and chronic respiratory conditions: bronchial asthma, pulmonary tuberculosis, bronchiectasis, the wheezing child, congenital anomalies of the tract.

5. **Genitourinary System and Gastro-Intestinal Tract - PAE 505**
Acute diarrhoea and vomiting.Chronic diarrhoea.Fluid and electrolyte imbalance, ORT.Jaundice, Hepatitis.Intestinal Parasites. Abdominal pain, Malabsorption, GIT bleeding.Developmental and structural anomalies of the genitourinary Tract.Urinary tract infections.Glomerulonephritis.Nephrotic syndrome and renal failure (acute, chronic).
6. **Endocrine and Metabolic Diseases - PAE 506**
Hypothyroidism and hyperthyroidism, Diabetes mellitus and hypoglycaemia, rickets.Precocious puberty and delayed puberty.
7. **Diseases of the CNS, Muscles and Bones - PAE 507**
Acute infections, meningitis, encephalitis etc.Hydrocephalus: causes, complications. Microcephalus: causes complications. Convulsions in infancy and childhood.Coma and Cerebral Palsy.Mental subnormality.Pyomyositis and progressive muscle diseases.
8. **Diseases of the Blood - PAE 508**
Anaemia in infancy and childhood.Haemoglobinopathies.Leukaemia.Bleeding disorders.
9. **Specific Infections and Genetics - PAE 509**
Measles, pertussis, mumps.Malaria.Tuberculosis, Salmonellosis, Schistosomiasis.Autosomal recessive inheritance, autosomal dominant inheritance.X-linked dominant inheritance, X-linked recessive inheritance.Chromosomal abnormalities, genetic investigations and counselling.
10. **Paediatrics Oncology - PAE 510**
Burkitts tumor.Nephroblastoma.Neuroblastoma.Hepatoblastoma.CNS Tumors and Reticulo-endothelial malignancies.
11. **Neonatology - PAE 511**
Students should spend some time (7 – 14 days) in the Newborn Unit to acquaint themselves with the problems of the newborn infant – normal and abnormal-and prevention of these: Normal newborn, preterm, small-for-date post term baby, jaundice in the newborn, haemorrhagic disease in newborn, respiratory problems in newborn and neonatal infections: Sepsis, Meningitis, Tetanus.

MBBS CURRICULUM IN SURGERY

Aims and objectives

The MB,BS Curriculum in Surgery in Benue State University, Makurdi spans a period of three years from the beginning of the fourth to the end of the sixth year of the medical training.

The main goal is to produce medical doctors well versed in the basic art and sciences of surgery and well adapted to the surgical problem commonly seen in the West Africa sub region and elsewhere. The curriculum also prepares them for residency training in surgery. The clinical students are exposed to comprehensive course of lectures, tutorials in small groups, surgical clerkship; out-patient surgical clinics, accident and emergence services, operating theatre sessions, medical informatics, medical ethics, basic research knowledge and audio-visual display of the above. They also participate as observers in resident programmes such as surgical audit, clinical case presentations, theatre sessions and seminars.

The lectures cover all subspecialties of surgery, medical information and ethics in surgery. The lectures are equitably distributed among the lecturers with emphasis on their subspecialties, research interest, as well as in areas they are actively involved in practice. The lectures are grouped into subspecialties and at the end of their training the results of the test form the continuous assessment scores which are integral part of their score at the final 5th MB,BS examination. Students who do not meet up to 80% attendance and participation in all activities of the surgery curriculum are not allowed to take the final examination in surgery.

The surgery programme in undergraduate medical training is:

1. To introduce students to the methodology of ascertaining correlating symptoms and signs of surgical illness.
2. To co-ordinate previously acquired knowledge in surgical anatomy, surgical pathology and physiology and relate same to the symptoms and clinical presentation of surgical illness.
3. To acquire and possess cognitive and psychomotor skills in the care of surgical patients, including the ability to identify relevant investigation and Surgical procedures in the management of surgical patients and be capable of performing basic tests and procedures.
4. To be able to initiate management in surgical patient and discern the indications for seeking appropriate support.
5. Acquire the appropriate skill to act objectively in emergency situations to have the basic skills to fit in today's changes in the practices of Surgery:

COURSE STRUCTURE

The undergraduate training programme in surgery will be conducted through the following instructions:

6. Lectures.
7. Tutorials
8. Clinic attendance.
9. Clinico-pathological conferences
10. Bedside teaching
11. Seminars
12. Journal reviews
13. Use of computers/computing as it affects surgery
14. Minimal access surgery
15. Lasers/molecular Biology and surgery
16. Introduction to management, planning and administration
17. Communication skills in surgery

As appropriate, the following teaching aids will be utilized:

1. Audio-visual aids
2. Clinical models
3. Simulations
4. Side lab.
5. Computer informatics
6. Inpatient Care which is to involve the student in:
7. Patient clerkship
8. Correlation of nursing care with medical management
9. Investigatory concept and practice
10. Therapeutic decisions, modifications and applications.

To achieve the cognitive and psychomotor skills for inpatient arrangement, the student will take on patients in symbolic role of in-loco-surgeon without actually exercising the decision-making role of the patient. He will clerk patients as if he were the doctor.

He will follow them up from day to day in the course of treatments until discharged or disposed off.

COURSE WORK IN SURGERY

The course work in surgery is in complete harmony with the course objectives of the clinical training programme, but is specific to the discipline of surgery and the related minor specialties, that is, anesthesia, ophthalmology and

otorhinolaryngology.

The course objectives are to be attained, using the course structure in four postings that are interrelated within the clinical programme of training. The recommended postings are:

1. Junior Surgery posting
2. Intermediate Surgery posting
3. Senior Surgery posting (Major Surgical Sub-Specialties).
4. Senior Surgery (Minor Sub-Specialties: Anesthesia posting. Ophthalmology and

Otorhinolaryngology).

Surgery (SUG)	Course
SUG 401	Introduction to Clinical Surgery
SUG 402	General Surgery
SUG 403	Gastrointestinal Surgery
SUG 404	Urology
SUG 405	Plastic Surgery & Burns
SUG 501	Solid Tumours and other Neoplasms
SUG 502	Cardiothoracic including Vascular Surgery
SUG 503	Paediatric Surgery
SUG 504	Neuro Surgery
SUG 601	E. N. T.
SUG 602	Ophthalmology
SUG 603	Orthopaedics
SUG 604	Radiology
SUG 605	Anesthesia
SUG 606	Special Topics in Surgery
SUG 607	Basic Practical Skills In Surgery

JUNIOR SURGERY POSTING

This is a sequential follow-up of the previous training in human and medical biology. The objective is to introduce students to the method of collating the clinical features of common surgical problems, utilizing the deductions so obtained to determine relevant investigatory and treatment procedures in the management of surgical disease.

JUNIOR SURGERY LECTURES

SUG 401 Introduction to Clinical Surgery

1. The development of surgery
2. Concept and History of Surgery
3. Surgical Anatomy, Symptoms and Physical signs
4. Surgical Physiology, Symptoms and Physical signs

5. Homeostasis: Bodily changes in Trauma and Surgery
6. Shock: Causes and management of Circulatory Collapse
7. Fluid and Electrolyte Balance in Surgical Patients
8. Principles of Pre-operative preparation of the surgical patient.
9. Wound Healings: Biological and Clinical Features
10. Blood Transfusion and Disorders of Surgical bleeding
11. Metabolism and Nutrition in Surgical patients
12. Fever in Surgical patients
13. Principles of Operative Surgery: Antisepsis, techniques, sutures and Drains.
14. Surgical Infections and Choice of Antibiotics
15. Surgical complications: Principles of Post-operative management. Hernias
16. Trauma: Management of the Acutely Injured Patient
17. Surgical Diseases of the breast
18. The Thyroid Gland
19. Scrotal Swelling
20. Surgical Disease of the Stomach and Duodenum
21. Hepatobiliary Disorders
22. Pancreatic Disorders
23. Surgery of the spleen
24. Molecular Biology and Surgery
25. Use of Computer/Internet
26. Basic Principle of Business management, Planning and Administration

INTERMEDIATE SURGERY POSTING

The aims are:

1. To consolidate the knowledge which the student had obtained In the course of the Junior Surgery Posting and
2. Simultaneously, to enhance his skill in the correlative application of pathology, clinical and investigative diagnosis and the treatment of general disease.

INTERMEDIATE SURGERY POSTING (MAJOR SURGICAL SPECIALTIES)

This posting is designed to enable the student absorb the biological concept as it is applicable to the clinical management of surgical diseases in the sub-specialties of General Surgery Urology Orthopaedic Surgery, Paediatric; surgery. Plastic and Reconstructive Surgery, Thoracic and Vascular Surgery as well as in Neurosurgery.

SUG 402 -GENERAL SURGERY

1. The face; mouth and tongue
2. The Neck
3. The thyroid gland
4. Surgical diseases of the Breast

SUG 403 - Gastrointestinal Surgery

1. Oesophageal Disorders
2. Acute Abdomen
3. Intestinal Obstruction
4. Surgical diseases of the Stomach and Duodenum
5. Hepatobiliary Disorders'
6. Pancreatic disorder
7. Surgery of the Spleen
8. The small intestine and appendix
9. Surgical Disorders of the Colon rectum Anal Canal
10. Congenital anomalies of the small intestine

SUG 404 - Urology

1. Urological Anatomy and Physiology
2. History and Physical examination in (Surgical) Urology
3. Diagnostic procedure and instrumentation in Urology
4. Congenital Anomalies of the Genito-Urinary Tract
5. Genito-Urinary Tract Trauma
6. Surgical aspects of Urinary schistosomiasis
7. Urinary tract infection
8. Urinary tract obstructions: renal stones
9. Paediatric Urology
10. Genito Urinary Neoplasm
11. Renal Failure

SUG 405 - Plastic Surgery & Burns

1. Diagnosis and management of Burns
2. Pathological processes of the Epidermis
3. Malignant Tumours of Fibrous Tissue
4. Cancer of the skin
5. Superficial Lumps
6. Principles of skin grafting and skin transportation
7. Alternatives to skin cover

SUG 501 - Solid Tumours and other Neoplasms

1. Solid tumors, benign and malignant and, particularly neoplasms of the liver, reticulo-endothelial system e.g. Burkitts lymphoma and salivary glands and jaws.

SUG 502 - Cardiothoracic including Vascular Surgery

2. Disorder of the Lymphatic system
3. Disorders of the Veins

4. Pulmonary Embolism
5. Surgery of the Arteries
6. Aneurysms
7. Thrombo-Obliterative disease of the Aorta and its branches.
8. Surgical Disorders of the lungs, pleura and chest wall
9. Bronchoscopy
10. Thoracic Trauma
11. Lung Abscess: Bronchiectasis
12. The Pleura and Empyema
13. Surgical treatment of Pulmonary Tuberculosis
14. Tumours of the Respiratory system
15. Thoracic outlet syndrome
16. Congenital Disorders of the chest wall
17. Surgical Disease of the Mediastinum
18. Cardiac Surgery
19. Cardiac Catheterisation
20. Cardio-respiratory arrest: Prevention, Diagnosis and Management
21. Congenital Anomalies of the Heart and Great Vessels
22. Acquired disorders and Cardiac Valvular Disease
23. Cardiac Neoplasms
24. Cardiac Pacemakers
25. Assisted circulation

SUG 503 - Paediatric Surgery

1. Paediatric Surgery
2. Respiratory Distress
3. Congenital Disorders in the new-born and childhood
4. Acute Abdomen in children
5. Neoplasm in children
6. Surgical Care in Sickle Cell Disease
7. Early Diagnosis of Congenital Lesions.

SUG 504 - Neuro Surgery

1. Diagnostic techniques in neuro-surgery
2. Spontaneous Intracranial Haemorrhage
3. Cranio-cerebral Trauma
4. Intracranial Infections
5. Intracranial Tumours
6. Spinal Disc Disorders
7. Spinal Infections
8. Spinal Trauma
9. Peripheral Nerve Injury
10. Congenital Disorders in neuro-surgery

11. Neuro-surgical relief of pain
12. Neuro-surgical treatment of Epilepsy.
13. Principles of Stereotactic neuro-surgery

SENIOR SURGERY POSTING (MINOR SURGICAL SPECIALTIES)

During this period the student will be methodically exposed to acquire knowledge relevant basic skill in the diagnosis. investigation and treatment of disease in the specialties of anaesthesia, ophthalmology, radiology and otorhinolaryngology

For a period of eight weeks, he will perform duties as a 'Junior House Surgeon" in the care of patients in the wards and as a Junior Casualty Officer" in the reception and care of surgical emergencies.

It is a period for the student to consolidate fully the knowledge and skill he has acquired in surgical training to enable him emerge into the profession as a confident and competent house surgeon. Thus, all other relevant factors being fulfilled, he will be fit to be granted provisional registration by the Medical and Dental Council of Nigeria.

During the various courses of training in Surgery, the student would be expected to acquire skill in the following procedures:

SUG 601 - E. N. T.

1. Ear Diseases:
2. Applied anatomy and physiology
3. History taking and examination in E.N.T.
4. Diseases of the external ear
5. Otitis media
6. Complication of otitis media Haematoma allays
7. Eartrauma Foreign body, temporal bone fracture
8. Deafness and audiology
9. Tinnitus
10. Vertigo and balance disorders
11. Tumours of the ear
12. Nasal Diseases:
13. Applied anatomy and physiology of the Nose and the paranasal sinuses
14. Radiographic examination of the Nose and Sinuses
15. Nasal Injuries: Foreign bodies. Septal Haematoma; Nasal Fractures.
16. Rhinitis and Rhinosinusitis
17. Nasal Polyps and Nasal Allergy
18. Complication of Rhinos in us it is Epistaxis

19. Naso-antral tumours
20. Throat Diseases (Larynx, Pharynx and Oesophagus)
21. Applied anatomy and physiology of the throat
22. Radiographic examination of the throat
23. Traumatic conditions Foreign bodies in the Oesophagus, Larynx and
24. Pharynx
25. Penetrating neck injuries e.g. gunshot, arrow and stab wounds.
26. ENT manifestation in HIV/AIDS patient
27. Adenoids
28. Tonsillitis
29. Peritonsillar Abscess (Quinsy)
30. Retropharyngeal abscess
31. Tonsillectomy and adenoidectomy
32. Stridors and Hoarseness
33. Tracheostomy
34. Respiratory Papillomatosis
35. Tumours of the Larynx and Pharynx

SUG 602 - OPHTHALMOLOGY

1. Applied Anatomy and Physiology of the Eye and -Orbit.
2. The Red Eye: Conjunctivitis, Corneal Ulcer, Iritis, Choroiditis.
3. Eye Injuries: Contusion, Penetrating, Burns (Chemical and Thermal), Foreignbodies.
4. Lesions of the Eyelids: Chalazion, Stye, Trichiasis, Entropion, Ectropion.
5. Gradual Loss of Vision: Cataract, Glaucoma
6. Sudden loss of vision: Vitreous Hemorrhage, Central Retinal Arterial
7. Occlusion and Venous Thrombosis, Retinal Detachment.
8. Strabismus
9. Optic Nerve disorders: Neuritis, Papilloedema, Atrophy.
10. Errors of Refraction: Myopia, Hypermetropia, Astigmatism and Presbyopia
11. Community Eye Care: General Ocular Hygiene, Harmful Traditional Eye
12. Medication including couching.
13. Nutritional Eye Disease: Bit A Deficiency.

During the course of training in Ophthalmology, the student would be expected to acquire skill in the following procedures;

1. Visual Acuity testing with Snellen's Chart
2. Eye Drops and Eye Ointment application
3. Foreign body removal (General and Conjunctival)
4. Direct Ophthalmoscopy

SUG 603 - Orthopaedics

1. Fractures and dislocations 6 lectures

2. Infections of Bones and Joints Bone Tumors 2 lectures
3. Congenital disorders of musculo-skeletal system
4. Rheumatic disorders of the Muscle-skeletal system
5. Amputation and limb substitution
6. Replantation of the extremities
7. Multiple injured patient - at the site
8. Removal
9. Transit Hospital/ Rehabilitation
10. Triage, Blood and Blood Conservation
11. The Hand
12. Infections of the Musculo skeletal system in tropics

SUG 604 - Radiology

Tutorials in Radiology:

1. It is expected that the medical student should be initiated into the role of radiological imaging during the pre-clinical period as part of the Teaching of Human Anatomy. This helps to correlate cadaveric anatomy in the living i.e. Radiological Anatomy.
2. During the Introductory Course at the commencement of the clinical years, students should have lectures on: The principles of X-Ray production and image formation; and an overview to emphasise the usefulness and comprehensive nature of the use of Radiology in Medicine.

Radiologic Anatomy

1. Normal radiological anatomy of the upper and lower extremities, the thorax, the spine and the pelvic girdle.
2. Appearance of ossification centers and bone age determination.
3. Radiological anatomy of the skull as seen in the following radiographic projections: Anteroposterior, Lateral, Towne's, Submentovertical (SMV) and Occipitomental.

Tutorials in Radiology

It is expected that by the end of the training, the student should have acquired the ability to approach the reading of a Chest X-Ray which is the single most basic principle. He should be able to identify gross changes in the lung fields e.g. pneumonias, collapse, fibrosis, canon ball secondaries, pneumothorax, pleural fluid collection, acute pulmonary oedema and the various presentations of tuberculosis; Cardiac contour e.g. right and/or left sided cardiac enlargement, left atrial enlargement, aortic arch unfolding or aneurysm etc., Rib fractures, rib changes in rickets and Soft tissue changes in the chest wall; identify not only gross fractures but the not so obvious greenstick fractures of childhood which occur most commonly and will come to him as a casualty officer; be able to review a plain X-Ray of the

abdomen and recognize normal bowel distribution pattern, pneumoperitoneum (in bowel perforation), normal and enlarged liver, spleen and kidney, upper small bowel obstruction, mid-small bowel obstruction, distal small bowel obstruction, distal colonic obstruction, mid-colonic obstruction, proximal colonic obstruction; identify radio-opaque gall stones or ureteric calculi and bladder stones, parasitic calcifications; recognise degenerative changes in the spine, vertebral collapse, paravertebral abscesses; assess contrast examinations for gross pathology e.g. barium meal, barium enema, intravenous urography, cholecystography and cholangiography, cystourethrography, urethrography, myelography, ventriculography, cerebral angiography, arteriography, aortography, hysterosalpingography, the use of ultrasound in Radiology, the use of radioisotopes in Radiology and Radiotherapy in the management of malignant disease. The student should be taught the importance of filling a Request Form for Radiological examination adequately. He should not only know what to ask for but also the appropriate sequence of requests till radiological examination is exhausted.

SUG 605 - Anesthesia

1. Introduction to anaesthesia including the roles of the anaesthetists in Resuscitation, operative management, intensive care and pain management
2. Pre-operative assessment, Preparation and Pre-medication
3. Principles and uses of Anaesthetic Equipment and Breathing Systems.
4. Techniques of maintaining the Airway
5. Anaesthetic Techniques: General Anaesthesia including Inhalational and
6. Intravenous Methods.
7. Anaesthetic Technique: Regional Anaesthesia including Surface. Nerve blocks, Spinal, Epidural. etc and pharmacology of local Anaesthetic drugs.
8. Choice of Anaesthetic method and Technique as influenced by Concurrent
9. Medical Diseases and Patients Conditions.
10. Monitoring during Anaesthesia and patient Transport
11. Post Anaesthetic Care, Complications and Management
12. Management of Acute and Chronic Pain
13. Ambulatory (Day case) Anaesthesia
14. Administration of fluids electrolytes and Blood
15. Intensive Care Therapy including Nutrition in the Critically ill Patient and
16. Oxygen Therapy.
17. Cardiopulmonary Arrest, Resuscitation and Ethical Issues.

SUG 606 - Special Topics in Surgery

1. Traumatology and problem of road traffic accidents.
2. Care of the severely injured, management of shock, treatment of fractures.
3. Communication skills in surgery.
4. Basic principles of Business Management.

5. Planning and Administration II
6. Use of Computer/Internet (2)
7. Weekly Journal Review
8. Communication Skills in Surgery

SUG 607 - BASIC PRACTICAL SKILLS IN SURGERY

1. Cut-down, venostomy and camulation
2. Setting up I.v. drip and management of I.v. infusions
3. Insertion and removal of urinary catheters
4. Suturing of Lacerations
5. Incision and drainage of superficial abscesses
6. Preparation of patients for colonic and ano-rectal operation
7. Establishment, management and removal of chest tubes
8. Aspiration of fluid from the pleural space
9. Aspiration of fluid from the pericardial space
10. Application and removal of P.O. P. cast
11. Application of temporary splints
12. Making an electro cardiographic recording (ECG recording)
13. Endo-tracheal intubations
14. Aspiration of fluids from joint spaces
15. Intra-articular instillation and injections
16. Preparation of patient for surgery
17. Electromyography
18. Tracheal aspiration
19. Laryngoscopy
20. Cystoscopy
21. Tonometry
22. Tuberculin test
23. Ultrasonography
24. Bone marrow aspiration
25. IVU
26. Gastric intubation lavage
27. Gastroscopy
28. Liver biopsy
29. Abdominal Parecentesis
30. Protoscopy
31. Bladder Catheterisation
32. Renal Biopsy
33. Sigmoidoscopy
34. Lumbar Puncture
35. Peritoneal Haemodialysis
36. Excision biopsy of simple lumps

COLLEGE REGULATIONS AND THE EVALUATION SYSTEM

A. QUALIFICATION TO PROCEED FROM 100 TO 200 LEVEL MBBS COURSE

As spelt out in the Curriculum for 100 Level, the subjects have been rated C (Compulsory) and E (Essential).

The C group of 4 subjects carries 32 Credit Mathematics (6 CU) and Physics (12 CU).

The group of 8 GST items carries 10 CU.

Total = 42 CU.

In order to proceed to the 200 level MBBS programme, a student must fulfill:

Either:

i. Pass all the 42 Credit Units, i.e. $\geq 40\%$ in each Course;

Or: ii. Pass all the 32 CU of the C group;
i.e. $\geq 40\%$ in each Course plus a minimum of 5 out of the 10 CU of the E group;

Or: iii. Fail only 1 or 2 courses of the C group, i.e. Score $< 40\%$; but the Subject Average $> 50\%$ in each of the subjects of the C group.

Students who fail to meet any of i – iii above will be advised to transfer from the MBBS programme to any course within the University.

There shall be no Resit at the 100 Level MBBS Course;

The E-group consists of the GST Courses and is mandatory for all students in the University. A student who fails any GST course will carry-over that course and pass it before graduation.

B. QUALIFICATION TO PROCEED FROM 200 TO 300 LEVEL MBBS COURSE

REGULATIONS:

1. During these two (2nd and 3rd) Pre –Clinical Years,
Student performance shall be determined by means of:

1. Continuous Assessment (CA)
2. A Comprehensive Examination (CE) at the of 200 Level (it is a non promotional exam, but scores shall make up part of the final CA scores)and
3. The First Professional Examination (PE) at the end of 300 Level.
4. The CA and the PE will carry 30% and 70% respectively of the total mark.
5. The Pass mark for each subject shall be 50%.
6. The CA shall be based on Periodic Tests taken either during or at the end of study of each body system or equivalent programme and on practical.
7. A candidate must have atleast an attendance of 75% in each of the course lecture as well as the overall attendance to qualify to sit for the end of course assessments and the First Professional Examination respectively

C. QUALIFICATION TO PROCEED TO 400 LEVEL MB.BS

In order to proceed to the Clinical Clerkship of year 4,5 and 6, a candidate must complete the prescribed courses in Anatomy, Biochemistry and Physiology and pass the FIRST PROFESSIONAL EXAMINATION IN these subjects with a grade of not less than 50% in each subject (CA – 30% and PE -70% taken together).

1. A candidate who fails in not more than 2 subjects shall Resit the subjects failed within three months of the first examination. If he fails the Resit examination, he shall repeat Year 3.
2. A candidate who fails all the 3 subjects shall repeat Year 3 and shall retake all the failed subjects at the end of Year 3.
3. Where a student has to repeat a whole year in order to sit for subject(s) previously failed, he shall be required to repeat the entire course to improve on his CA and sit the First Professional examination in all the subjects.
4. After repeating Year 3 and examination, a candidate who fails all the 3 subjects shall be required to withdraw from the MB.BS programme.

A candidate who fails 1 or 2 subjects shall be allowed to Resit the failed subject(s) within three months of the 1st PE. If the candidate fails any subject after the Resit examination, he shall be required to withdraw from the MB.BS programme.

5. External Examiners shall be required in the conduct of the 1stProfessional Examination.

D. REGULATION FOR THE CLINICAL YEARS

- a. The 4th, 5th and 6th years constitute the Clinical Years. Student's performance during the three years shall be assessed by means of the Progressive Assessment (CA) and by the final Examination (PE). The CA and PE shall carry 30% and 70% respectively of the total marks.
- b. The CA shall be based on periodic evaluation from Clinical supervisors and end-of-posting tests.
- c. The 2nd, 3rd and 4th Professional Examinations shall test both theoretical knowledge and practical skills.
 - i. No Student shall pass Clinical subject unless he obtains a minimum of 50% in the Practicals (CA and PE put together).
 - ii. External Examiners shall be required to take part in the examination.
 - iii. No candidate shall sit for the 3rd Professional Examination without first passing the two subjects in 2nd Professional Examination. Similarly, no candidate shall sit for the 4th Professional (Final) Examination without having passed the two subjects of the 3rd Professional Examination.

E. SECOND PROFESSIONAL EXAMINATION

This shall be held 48-50 weeks from commencement of the Clinical Programme.

The Subject to be examined shall be:

1. Pathology (Morbid Anatomy and Histopathology, Microbiology and Parasitology, Haematology, Chemical Pathology and Immunology).
2. Pharmacology and Therapeutics.

F. THIRD PROFESSIONAL EXAMINATION

- a. This shall be held about 4 months after the 2nd professional Examination.
- b. The subjects to be examined shall include:
 - I Paediatrics
 - II Obstetrics & Gynaecology

G. FOURTH PROFESSIONAL EXAMINATION

- a. This shall be held 6-8 months after the 3rd Professional examination.
 - b. The subjects to be examined include:
 - i. Medicine (including its subspecialties and Psychiatry)
 - ii. Surgery including (its subspecialties), Anaesthesia, Ophthalmology, Otorhinolaryngology and Radiology.
3. Epidemiology and Community Health.

H. RESIT EXAMINATIONS

- a. A candidate who fails any subject in each of the 2nd, 3rd, and 4th Professional Examinations shall be required to Resit the subject failed within 3 months of the initial attempt. A candidate who fails the Resit attempt shall drop to the next lower class. He shall be required to repeat the year (including Clinical Clerkship and CA in the subject failed).
- b. A candidate who fails all the subjects in the 3rd Professional Examination at first attempt shall Resit all the subjects failed within 3 months of the initial attempt. A candidate who fails the Resit attempt shall drop to the next lower class. He shall be required to repeat the year (including Clinical Clerkship and CA in the subject failed). A candidate who fails all the subjects in the 4th Professional Examination at first attempt shall Resit all the subject failed within 3 months of the initial attempt. A candidate who fails the Resit attempt shall drop to the next lower class. He shall be required to repeat the year (including Clinical Clerkship and CA).
- c. A candidate who fails again after repeating a year shall be required to withdraw from the MB.BS programme.
- d. A candidate who fails the 4th Professional Examinations (Final Examination) again after repeating the year shall be required to withdraw from the MB.BS programme. He may reapply through the CHS for a resit; (fourth and final attempt) subject to Senate approval.

I. STATUS OF DEGREE

- a. The degree of MB.BS shall be an unclassified degree
- b. DISTINCTIONS shall be awarded to a student who obtains 70% and above in any subject of the Basic Medical or the Clinical Science subjects. The distinction shall be indicated in the MB.BS Certificate of the Medical graduate.

Benue State University Medical Students Association

(BESUMSA)

A BRIEF HISTORY

BESUMSA, the Medical Student Association of Benue State University College of Health Sciences has come a long way with its history taking root from the inception of the College. The association was born out of the challenges associated with the establishment of Medical schools and the need for unity among medical students. Following the take off of the College, pressing needs arose for medical students to have a forum under which they can interact, disseminate information and pursue a common goal with Medical students in other Colleges of medicine in Nigeria Association.

At this embryologic stage, the Medical School had just one Class (The Pioneer Class) with 36 members. *John OmaleOdejo* a member of that class alongside with *Moses TerfaAsue* undertook the responsibility of uniting the Medical Students towards actualising the needs mentioned above. The meetings at this point were informal as there was no executive council. Consequently, medical students paid into the treasury of the Biological Sciences Student Association (BIOSSA)

This rudimentary stage continued for 4 years until the Classes in the Medical School increased from one to four.

As the College grew in terms of number of Students and Staff numbers; and following movement to its permanent site, challenges faced by medical students also increased almost simultaneously and issues were constantly arising necessitating a formal approach by Medical Student Union.

The medical students Association (BESUMSA) has since steadily grown in leaps and bounds having had three democratically elected executives to run the association.

The pioneer interim president John Omale Odejo handing over to Asue Moses Terfa, the First democratically elected (BESUMSA) president, who served meritoriously and handed over to Innocent Abah Ochigbo led executives whose leadership saw a dogged commitment to articulating and drawing the attention of all stakeholders in the running of the college of Health Sciences to the problem of academic stagnation that befell the medical school and her students. Having served the one year tenure, the Abah led executives handed over to the current BESUMSA executives under the leadership of Kawen Pededoo Timothy, who has continued to steer the wheels of Medical Students' welfare like his predecessors.

The medical students have gradually increased in number, interrelated with other students of the university and have participated in the university Students Union

culminating in the election of a medical student, Surma Tarlunmun as speaker of the Students Union Parliament.

STAFF LIST

COLLEGE ADMINISTRATION: PROVOST'S OFFICE.

Prof. **Adebisi**, Simeon Adelani
MBBS, FMCPath, MWACP
PROVOST

Nongo, Celina J.
BSc. ADPA, ND
Principal Confidential Secretary

Adaba, Igbaningev
B.Sc, PGDE
Protocol Officer

Oklobia, Hilary
BSc
Information Officer

Otobo, Nathaniel
HND, PGD,ADPA
Higher Store Officer

Ifam, Richard Zenda
SSCE, Cert., Dip
Clerical Offcier

Iorpenda, Terdoo
SSCE
Clerical Officer

Msuega, Abel U
SSCE
Messenger Cleaner

Iordye, Simon T.
SSCE
Messenger Cleaner

FACULTY OF BASIC AND ALLIED MEDICAL SCIENCES

DEAN'S OFFICE:

Professor John Odo Ibu

Dean

B.Sc Physiology (1st Class Hons.)ABU; MBBS (ABU); Ph.D (Nottingham UK); MRSH (UK); FRSMed (UK); Adv. P.G Cert. Gastroent.(London); FRSH (UK); FICA (New York); F. Memb.New York Acad. Sc. (NY).

Obochi, Godwin O

B.Sc, M.Sc; PhD

Examination Officer

Agi, John O.

B.Tech.

Faculty Officer

Pever-Ge, Joyce

B.A.hons

Assistant Faculty Officer

Ogbu, Matthew I.

NCE

Confidential Secretary III

Pandem, Charles Z.

SSCE

Clerical Officer

Ishose, Elizabeth

SSCE.

Messenger/Cleaner

Unduve, Ignatus

SSCE

Messenger/Cleaner

ANATOMY

ACADEMIC STAFF

S/N	NAME	QUALIFICATIONS	STATUS
1.	Saalu, Linus Chia	MBBCh; MPH, M.Sc, PhD, MPA	Professor
2.	Kpela, Terkula	B.Sc Hons (1989) MB,ChB (2000) M.Sc (2010)	Lecturer I
3.	Onoja, Peter O.	MBBS	Lecturer II
2.	Akang, Edidiong Nnamso	B.Sc Hons (2006), M.Sc (2009) Ph.D (2015)	Lecturer II
4.	Ihyar, Clement Ayange	B.Sc Hons (2000), M.Sc (2007),	Assistant Lecturer
5.	Ibiyeye, Rukayat Yetunde	B.Sc Hons (2006), M.Sc (2011)	Assistant Lecturer

TECHNICAL STAFF

S/N	NAME	QUALIFICATIONS	STATUS
1.	Atsenga, Simon D.N.	LA (1983) MLA (1984) MLT (1991)	Principal Medical Lab. Technician
2.	Idoko, Gabriel O.	B.Sc Hons (2002)	Senior Tutor/Prosector
3.	Keryongu, Peter T.	MLT (1988)	Higher Med Lab. Technician

JUNIOR STAFF

S/N	NAME	QUALIFICATIONS	STATUS
1.	Tondo, Josephine	FSLC -1992 SSCE - 2006 Dip. Comp Sc – 2001	Computer Operator II
2	Buter, Vivian	OND – 2004 .SSCE – 2008 FSLC -1990	Computer Operator II
3.	Geri, Emmanuel	FSLC - 1991 SSCE - 1997	Clerical Officer
4	Ugondo, Amaka	SSCE – 2011 GCE – 1990	Lab. Attendant

5	Aondoakaa, I. Richard	Auxinur/MDW. 1991 SSCE – 2005 FSLC – 2002	Lab Attendant
6.	Torkor, Aondonengen	FSLC - 1992 SSCE - 2002	Lab. Attendant
7.	Owoicho, Abdul	FSLC - 1996 SSCE – 2002	Lab. Attendant
8.	Idyu, Titus	SSCE – 1999 SSCE – 2011	Messenger/ Cleaner

BIOCHEMISTRY

ACADEMIC STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Ayatse, James		Visiting Prof
2.	Adoga I. Godwin	B.Sc. (1976) PhD (1980)	Visiting Prof
3.	Obochi, Godwin O.	M.Sc. (2002) PhD (2007)	Associate Prof
4.	Amokaha, Raphael A.	B.Sc. (1992) M.Sc. (2010)	Lecturer I
5.	Ochalefu, Owoicho D.	BM. BCH (1992) M.Sc. (2010)	Lecturer I
6.	Amali, El-Khalid O.O.	B.Sc. (1990) M.Sc. (1998)	Lecturer II
7.	Ogo, A. Ogo	B.Sc. (2003) M.Sc. (2007) Ph.D (2014)	Lecturer II
8.	Agada, A. Samuel	MBBS	Lecturer II

TECHNICAL STAFF

S/N.	NAME	QUALIFICATION	STATUS
1.	Ufaruna, Nathaniel	H ND PGD (1992), FSLT (2005)	Chief Technologist
2.	Igyor, Winifred K.	HND (1996) PGDM (2000)	Principal Technologist
3.	Ogbe, Umoru Emmanuel	HND (1996)	PrincipalTechnologist
4.	Yakubu, James	HND (1994), ADC (2005)	Principal Technologist

5.	Ahile, Lumun Emmanuel	MLT (1999)	Senior Lab. Technician
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ADMINISTRATIVE STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Ogwuche, GraceO.	HND (2003), ND (1997)	Higher Executive Officer (Admin)

JUNIOR STAFF

S/N.	NAME	QUALIFICATION	STATUS
1.	Ngule, Bem B.	Dip. Comp. Data pro – 2009 SSCE – 2001 SSCE – 2009 FSLC – 1991	Computer Operator II
2.	Kwenev, K. Nathaniel	SSCE – 2003 FSLC – 1996	Senior Clerical Officer
3.	Kwanga Nancy Member	Dip. In Mass Com-2002 SSCE – 2000 FSLC – 1994	Lab. Asst.
4.	Idikwu Florence	Grade II, NCE	Lab. Asst.
5	Catheine O. Ode	SSCE –	Messenger/Cleaner

HISTOPATHOLOGY

ACADEMIC STAFF

S/N	NAME	QUALIFICATIONS	STATUS
1.	Madong, Barnabas M.	MBBS, FMCPATH	Visiting Prof.
2.	Donatus, Zuachi	MBBS, FMCPATH	Senior Lecturer
3.	Ojo, Babarinde Akinedu	BSc (1985); MBBS (1988) MSc (1997); FMCPATH (2002)	Senior Lecturer
4.	Ngbea, Joseph Aondowase	MBBS, (2000) FMCPATH (2012)	Lecturer I

5.	Vihritehire Raymond	MBBS – 1986, FMCPPath-1994	Lecturer I
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TECHNICAL STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Ondoma, Phoebe	FIML, (2009) AIMLS (1990), MLT (1980)	Technologist I
2.	Shirgba Philip Ayolave	MLAC-1989, MLT- 1996	Senior Lab Technician

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Terna, Jennifer	SSCE – 2007 DDP – 2001	Computer Operator
2.	Amedu, Helen	SSCE – 2011	Clerical Officer
3.	Iortim, Helen Erdoo	SSCE – 2003	Senior Lab. Asst
4.	Terungwa, Kondoun	SSCE – 2010	Messenger/ Cleaner

MICROBIOLOGY

ACADEMIC STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Nwokedi, Emmanuel O.	M.D,(1985) MSc, (1995) FMCPPath (1997)	Professor
2.	Odimayo, Michael Simidele	MBBS, (1997), FMCPPath, (2006) PGDE, (2008)	Associate Professor
3.	Jombo, Godwin Terver	MBBS, (1996), FMCPPath (2004) M.Sc (2005)	Associate Professor
4.	Nwadioha, Samuel I.	MB BS (1991) FMCPPath (2009)	Senior Lecturer

		MSc, (2007)	
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TECHNICAL STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Yaakugh B. Jacob	GD (2007); NISLT, HND (1995) CMLT (1992)	Principal Lab. Technologist
2.	Sende, Sewuese	MHM (2009) B.Sc (1999)	Senior Technologist
3.	Ityodugh, Esther	Med. Lab., (1982-84) Med. Lab ,(1987-90) HND, MCB (2007-09)	Technologist I
4.	Utume Laura	B.Sc Hons (2005)	Technologist II
5.	Kuleve, Mathias I.	B.Sc Hons (2008)	Technologist II

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Grace, M. Watsav	Dip. In Comp – 2001 SSCE – 2001 FSLC – 1996	Computer Operator I
2.	Andrew, O. Otsapa	DPM – 94 – 95 GCE – 1986 FSLC – 1982	Clerical Officer
3.	Gabriel, M. Nember	SSCE – 1994 FSLC – 1987	Lab. Asst.
4.	Katsina Mercy	NCE – 2007 SSCE – 2002 FSLC – 1993	Lab. Attendant

CHEMICAL PATHOLOGY

ACADEMIC STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Adebisi, Simeon A.	MBBS (1990), FMCPPath(1998) MWACP (1996)	Professor
2.	Efosa, Kenneth	MBBS (1992); FMCPPath (2010)	Associate

	Oghagbon		Professor
3.	Amodu, Paul Hussein O.	MBBS (1968), FMCPPath.	Visiting Lecturer
4	Meludu, Samuel C.		Professor
5.	Myke-Mbata, K. Blessing	BSc (2004); MBBS (2009)	Lecturer II

TECHNICAL STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Abuul, Tor Peter	AIMLS	Senior Lab. Technologist
2.	Eimonye, Jack. O.	PGD,HND,AMLS	Lab Technologist I
	SENIOR ADMINISTRATIVE STAFF		
1	Iornongo Ngutor	OND	Computer Operator

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Tough, Msugh	SSCE – 2002	Snr. Lab Asst
2.	Asen, Blessing I	SSCE – 2007 FSLC – 1989	Clerical Officer
3	Nuhu, Simon	SSCE 2002, NECO 2008	Lab Assistant
4.	Joradam, Scholastica	SSCE – 2011 FSLC – 1990	Messenger/Cleaner

HAEMATOLOGY

ACADEMIC STAFF

S/N	NAME OF STAFF	QUALIFICATIONS	STATUS
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1.	Alao , Olusayo Olayinka	MBBS, FWACP, PDDM, MHM	Associate Prof
2.	Nwannadi, Alex	MBBS(2000), FWACP, FMCPPath (2010)	Senior Lecturer
3.	Orkuma, J.Aondowase	MBBS(1999), FMCPPath(2009)	Lecturer I
4.	Onoja, Anthony Micheal	MB, CHB(2000), Part I NPMC(2008) FMC Path (2014)	Lecturer I

TECHNICAL STAFF

S/N.	NAME	QUALIFICATION	STATUS
1.	Akpera, Manasseh T.	B.Sc. (1992) AIMLT (1998) , FMLS (2009)	Snr.Technologist
2	Addingi, James Akpa	HND Micro-Biology (1995), AISLT	Snr. Technologist
3	Imo, U. Genevieve	BMLS(2004), M.Sc.(2010)	Technologist. I

JUNIOR STAFF

S/N.	NAME	QUALIFICATION	STATUS
1.	Akile Ngunengen Charity	ND 2004 NECO 2009 FSLC1995	Computer Operator
2.	Aga, Iveren	FSLC – 1992 SSCE – 2007 NCE – 2006	Clerical Officer
3.	Hembe, Dinna N.	SSCE – 2006 OND Animal Health Prod – 1999	Lab. Asst.
4.	Ayatsea ,Felicia	FSLC – 1986 SSCE – 2011	Snr. Messenger/Cleaner

PHARMACOLOGY

ACADEMIC STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Asobie, Geoffrey Chidi	MD (1976) M.Sc. (2007)	Lecturer I
2.	Abua, Uya John	B.Pharmacy (1983) M.Sc. (1989)	Lecturer I

3.	Nwonu, Chukwunwike N.	M.Sc. (2010) MBBS. (2005)	Lecturer I
4.	Arubi, Ogbu Peter	B.Sc. Hons (1985) M.Sc. (2003)	Asst. Lecturer
5.	Okwuasaba, Francis K.	M.Sc., Ph.D, FMCPPath	Visiting Professor
6.	Adedayo, Folounsho Asolu	MBBS (1990),MCWACP (1998), M.Sc. (2000), MPH (2002), FMCP (2006)	Senior Lecturer
7.	Oloche, Jeremiah John	4. Pharm 2009	Asst. Lecturer

TECHNICAL STAFF

S/N.	NAME	QUALIFICATION	STATUS
1.	Enokela, Onum S.	B.Sc. (1999) AIMLSC (2004)	Technologist I
2.	Ani, Celestin O.	PGD (2010) HND (2006) ND (2004)	Technologist I
3.	Iorzua, Kula Stephen	MLTC (2001) MLAC (1998)	Med. Lab. Technologist
4.	Ikyuur, S. John	MLT (1994) MLA (1989)	Med. Lab. Technologist

JUNIOR STAFF

S/N.	NAME	QUALIFICATION	STATUS
1.	Maria Ejekwote	SSCE, Diploma	Computer Operator
2.	Fiase O. Manasseh	SSCE (2005-2012)	Snr. Clerical Officer

PHYSIOLOGY

ACADEMIC STAFF

S/N	NAME	QUALIFICATIONS WITH DATE	RANK	TENURE	SPECIALTY
1.	Prof. John Odo IBU	B.Sc Physiology (1 st Class Hons.) ABU- 1972; MBBS (ABU- 1975); Ph.D	Professor	Full-Time	Blood, GIT, Endocrine, Neurophysiology,

		(Nottingham UK) 1980; MRSH (UK) 1978; FRSMed (UK) 1979; Adv. P.G Cert. Gastroent. (London) 1980; FRSH (UK) 1984; FICA (New York) 1984; F. Memb. New York Acad. Sc. (NY) 1991.			Clinical Physiology and Special Sense.
2.	Dr. Sunday Adakole OGLI	MBBCH (1991); M.Sc (2010)	Lecturer I	Full-Time	Cell& Genetics, Respiratory, Excretory & Reproductive Physiology
3.	Dr. Emmanuel Ukonu ERU	MBBS (1990), M.Sc (2012)	Lecturer I	Full-Time	GI, Endocrinology, Excitable & Neuro-Physiology
4.	Dr Innocent ABI	MBBS (2009)	Lecturer II	Full-Time	Blood, Excitable Tissue, Neuro-Physiology
5.	Dr Augustine Oko ADUGBA	MBBS (2012)	Lecturer II	Full-Time	CVS, Excretory, Special Sense Physiology

1. TECHNICAL

S/N	NAME	QUALIFICATION WITH DATES	DESIGNATION	TENURE
1.	Mr. Richard J. EDIALE	FMLSCN 2008; AMLSCN 2004; HND 1998.	Technologist I	Full time
2.	Mr Celestine ANI	HND (ONISLT) 2006, PGD 2011	Technologist II	Full time
3.	Mr. Gabriel A. ODUGBO	MLTC, 1994	Snr. Med. Lab. Technician	Full time

JUNIOR STAFF

1. TECHNICAL

S/N	NAME	QUALIFICATION WITH DATES	DESIGNATION	TENURE
1.	Mrs.Dorcas UKEGH	SSCE, 2006; Dip in Mass	Lab. Assist.	Full time

		Com. 2001		
2.	Mrs. Joy O. AGBO	SSCE, 2001	Lab. Attendant	Full time
3.	Mr Sunday O. EBUTE	SSCE, 1986	Lab. Attendant	Full time

2. ADMINISTRATIVE

S/N	NAME	QUALIFICATION WITH DATES	DESIGNATION	TENURE
1	Mrs. Esther O. ADOGA	SSCE. 2007; Dip 2010; ND 2011; HND 2013	Computer Operator I	Full time
2	Mr. Joshua A. ONUMINYA	SSCE, 2004 ND, 2006	Clerical Officer	Full time

FACULTY OF CLINICAL SCIENCES

DEAN'S OFFICE:

Aching, Godwin
MBBS (1995); FMCP (2005)
Dean

Audu Onyemocho
MBBS (1998); FMCPH (2011)
Examination Officer

Pever-Ge, Ngunengen
B.A English (2006)
Faculty Officer

Illah, John O.
B.Sc (Hons) Econs (2006)
Asst. Faculty Officer

Mkpen, Nguwasen
Dip. Mass Comm, Dip. Data Proc, SSCE
Clerical Assist.

Dickson, Iorker
SSCE, NECO
Clerical Officer

Dam-Ayali, F. Timothy
SSCE, Dip. In Comp
Asst. Computer Operator I

Akange, Abigail M.
SSCE, WAEC, FSLC
Messenger/Cleaner

EPIDEMIOLOGY & COMMUNITY HEALTH

ACADEMIC STAFF

S/N	NAME	QUALIFICATIONS	STATUS
1.	Araoye, Olabisi Magaret	MBBS (1981); MPH (1989); FWACP (1992)	Professor (HOD)
2.	Utoo Priscilla Mwuese	MBBCH (1997); FMCPH (2007)	Senior Lecturer
3.	Bako, Ishaku A.	MBBS (1997), FMCPH (2005)	Senior Lecturer
4.	Audu, Onyemocho	MBBS (1998), FMCPH (2011)	Lecturer I
5.	Shaahu, Vivian N.	MBBS, MPH, FWACP	Part-Time Lecturer
6.	Chukwuemeka, Micheal Odo	MBBS, MPH, FMCPH, FWACP	Part-Time Lecturer
7.	Ogbeyi, Gabriel Ofikwu	MBBS (1990), FMCPH (2011)	Lecturer II (Snr. Reg)

ADMINISTRATIVE STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Akwe, Terfa Sunday	B.Sc (2005)	H.E.O.
2.	Vayima, Msuur Comfort	B.Sc (2004)	H.E.O
1.	Anom Caroline S.	Dip. Data Proc. – 2004 DBM – 2005 SSCE – 2003, 2006, 20011	Clerical Officer
2.	Iyanya, Ogbudu	Dip. In computer-2001 NCE-2007, SSCE-2011	Computer operator II
3.	Akosu Tersoo T.	SSCE – 2005	Messenger/Cleaner

TECHNICAL STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
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1.	Aju, John Iordye	HND (1982), RHA (1971)	Chief C.H.O
2.	Akor, John Onoja	FIMLS (2001), AIMLS (1994)	Asst.Chief.Lab Technologist
3.	Azua, Christopher	CHEW (1982), CHO (1994), PGD (2001)	Principal CHO
4.	Osokwe, Omenze	ADPA (1997), HND (1989)	Principal Comm. Health Extension Worker 1
5.	Iornum, Terna	HND CHO (2003), ADHSSM (1997), DCHS (1996), CHEW (1986)	Snr. CHO
6.	Ikyobo, Christiana	RM (2000), RN (1997), JCHEW (1991)	Snr. Nursing Officer
7.	Jimadu, Aondoaseer	HND (2001), AISLT (2007) IMLT (1994)	Snr. Lab Technologist
8.	Angwa, Dickson Ikpe	HND (1991), Diploma (1995)	Snr. Lab Technologist
9.	Nwannadi, Chinenye I.	B.Sc (2008), CHEW (2000)	Snr. CHEW
10.	Alao, Helen	JCHEW (2000), CHEW (2005), ADHSSM (2007)	Higher CHEW
11.	Gbande, M.Iyonenge	FSLC (1994), CHEW (2008)	CHEW II

MEDICINE

ACADEMIC STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Prof. M.A Araoye	B.SC,MBBS,Hons, MD,D.Sc.hc, FMCP, FRCPC,FWACP,MACP	Emeritus Professor
2.	Malu, Abraham Orkurga	MBBS, FMCP, FWACP, PGD	CMD/Visiting Professor
3.	Agaba, E. Idoko	MBBS, FWACP	Visiting Professor
4.	Aching, Godwin Ior	MBBS (1995), FMCP (2005)	Associate Professor
5.	Okpara, I.Chinyere	MBBS (1991), FMCP (2008)	Lecturer I(HOD)
6.	M.T Agbir	BM, BCH (1996), FWACP	Senior Lecturer

		(2010)	
7.	Mbaave, Peter Tsavyange	MBBS (1986), FMCP (2009)	Lecturer I
8.	Ogiator, Monday	MBBS (2000), FMCP (2013)	Lecturer I
9.	Ruth N. Bello	MBBS, FMCP	Part -Time Lecturer
10.	Gabriel Joseph	MBBS, FWACP	Visiting Lecturer
11.	Ezekiel Abene	MBBS, FWACP	Visiting Lecturer
12.	Emmanuel Obehinghe	MBBS, FWACP	Visiting Lecturer
13.	Echobu Ojobi Joseph	MBBS(2001), FWACP (2011)	Visiting Lecturer
14.	Audu Onuh	MBBS, FMCP	Visiting Lecturer

ADMINISTRATIVE STAFF

S/N	NAME	QUALIFICATIONS	STATUS
1.	Angwe, Linda Sewuese	Dip (2006)	Ex-Officer
2.	Illah Patience	Dip in Comp-2004 SSCE - 2007	Computer Operator I
3.	Josphine E. Agbo	SSCE - 2007	Snr. Clerical Officer
4.	Emmanuel Shatar	SSCE - 2002	Clerical Officer

OBSTETRICS & GYNAECOLOGY

ACADEMIC STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Swende, Terrumun Z.	MBBS(2001), FRCOG (2010), FWACOG (2009)	Associate Professor (HOD)
2.	Ameh, Benedict Abakpa	MBBS(1977), FRCOG (2000), FWACS (1990)	Senior Lecturer
3.	Ojabo, Augustine O.	MBBS (1991),FMCOG(2005)	Senior Lecturer
4.	Jogo, Andrea Avershima	MBBS(1989), FMCOG(2005)	Senior Lecturer
5.	Hembah, Hilekaan Samuel	MBBS(1986), FWACS(2005)	Senior Lecturer
6.	Utoo, BanardTerkimbi	MBBS(1997),FWACS(2011), FMCOG (2012)	Lecturer I
7.	M. Maanongun	MBBS(1998), FWACS(2014)	Lecturer I

ADMINISTRATIVE STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Odey U. Mary	NCE – 2010 Dip. Comp – 1999 SSCE - 2010	Computer Operator II
2	Tyokase, Mbaember J.	FSLC-1991 DPM-2005, SSCE-2011	Clerical Officer

SURGERY**ACADEMIC STAFF**

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Prof. Shima K. Gyoh	MBBS (1966), FRCS (1972), Dip. Obs&Gynea (1969)	Professor
2.	Ojabo, C.O	MBBS (1985), FWACS (2000)	Associate Professor
3.	Eke, Agaba Barnabas	MBBS (1981); FWACS (1998)	Senior Lecturer (HOD)
4.	Denen, Priscilla Akaa	BMBCH (1986); FWACS (2007)	Senior Lecturer
5.	Bitto, Terlumun	MBBS (1977), FRCS (1983)	Senior Lecturer(HOD)
6.	Malu, K.N	MBBS (1980), FMCONH (1988)	Senior Lecturer
7.	Ogwuche, Edwin. I.	MBBS (1996), FWACS (2007)	Senior Lecturer

8.	Kortor N. Joseph	MBBS (1998); FWACS (2007)	Senior Lecturer
9.	Chokwokadibia, Nnabugwu A.	MBBS (2001), FWACS (2012)	Lecturer I
10.	Elachi, Itodo Cornelius	MBBS (2001), FWACS (2009)	Lecturer I
11.	Yongo, Williams Terhem	MBBS (1995), FWACS (2007)	Lecturer I
12.	Mue, Daniel Demesugh	MBBS (2003), FWACS (2012)	Lecturer I
13.	Efu, M.E	MBBS (1984) Dip. Ann. FWACP	Lecturer I
14.	Soo, Charles Terna	MBBS, FWACS, EBPSC	Lecturer I
15.	Chia, D.M	MBBS (1989)	Lecturer II
16.	Inundugh P.S	MBBS (1990), FWACS (2009),	Visiting Lecturer

ADMINISTRATIVE STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Ekirigwe, Catherine Iyaji	B.A English (2002)	H.E.O
2.	Ogine, Felicia O.	Dip in Computer – 2005 DILR – 2004 SSCE – 2001 FSLC - 1995	Computer Operator I
3.	Igyese, Sandra	NCE – 2006 SSCE – 2001 FSLC - 1993	Snr. Clerical Officer
4.	Shom, Amos A.	Cert. in Dip Computer – 2008 DNCS – 2003 SSCE – 2001 FSLC - 1992	Clerical Officer
5.	Yande, Rebecca M.	Cert. in PPA – 2005 SSCE – 2002 FSLC - 1990	Messenger/ Cleaner

**OPHTHALMOLOGY
ACADEMIC STAFF**

S/N	NAME	QUALIFICATIONS	STATUS
1.	Ojabo, Cecilia O.	MBBS (1985); FWACS (2000)	Senior Lecturer
2.	Malu, Keziah Nanier	MBBS (1980); FMCS (1980)	Senior Lecturer

PAEDIATRICS

ACADEMIC STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Prof.E.E Eseigbe	MBBS, FWACP	Professor
2.	Idoko, Matthew Ame	MBBS (1967); MRCP (1972), FMC Pead (1976), FWACP (1978), FRCP (2008)	Senior Lecturer (HOD)
3.	Ochoga, Martha O.	BM,BCM (1992), FMC Pead (2006)	Lecturer I
4.	Anigilaje, E. A.	MBBS, MPH, FWACP, FMC Pead	Senior Lecturer
5.	Akpan, Uwem Justina	MBBS, FWACP	Part-Time Lecturer
6.	Oladeji, Olutola A.	MBBS (1998), FMC Pead (2001),	Visting Lecturer
7.	Rose O. Abah	MBBS,FWACP	Lecturer I
8.	J.O Dabit	MBBS, FMCPAED	Lecturer I
9.	S.E Okpe	MBBS, FWACP	Senior Lecturer

ADMINISTRATIVE STAFF

S/N	NAME	QUALIFICATIONS	STATUS
1.	Lawrence L. Iordye	ND,Secretarial Studies, ND, Business Admin. & MGT	Conf. Secretary I
2.	Patience Oko	WAEC	Senior Clerical Officer
3.	Iortim M. Becky	WAEC	Clerical Officer

PSYCHIATRY

ACADEMIC STAFF

S/N	NAME	QUALIFICATIONS	STATUS
1.	Agbir, Michael Terkura	MBBS, FWACP	Lecturer I

RADIOLOGY

ACADEMIC STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Mohammed, Hammeed	MBBS (1993); FMCR (2010)	Lecturer I
2.	Chia, Msuega Daniel	MBBS (1989)	Lecturer II
3.	Osu, Ogbere Joseph		Associate Lecturer

SENIOR ADMINISTRATIVE STAFF

COLLEGE SECRETARY'S OFFICE

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Catherine T. Bur	NCE, B.S.Ed., ADPM, M.Sc.	Deputy Registrar/ College Secretary,
2.	Asema Joseph	B.Sc., M.Sc.	Deputy Registrar/Establishment Secretary

CENTRAL ADMIN (SENIOR STAFF)

S/N	Name	Qualifications	Status
1.	Ukura, Samuel V.	M.A (2006), B.A (2002)	Asst. Registrar
2.	Abichele Adakole	B.Sc (2007)	Admin. Assistant
2.	Nyiekaa, Ngutor Malick	B.Sc.	Admin Officer
3.	Upuu, Juliet	B.Sc.	Higher Executive Officer Admin
4.	Ashaver, Bill Ushahemba	B.A (2002)	Admin Officer
5.	Pever-Ge, Peter Terhile	B.A (2006)	H.E.O.
6.	James Usuh	B.Sc. (2009)	H.E.O

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Ngukpen Comfort	DPM – 2003 SSCE – 2001 FSLC – 1994	Asst. Exec. Officer
2.	Vaseyam, Hembadoon	Cert. Sec. studies 1991 Dip. Comp. 2003 SSCE – 2007	Computer Operator I
3.	Adoga, Janet	SSCE – 2010 FSLC – 2002	Clerical Officer
4.	Ihula, Sixtus	SSCE – 2009 FSLC – 2002	Clerical Officer
5.			
6.	Iortyom, Alfred	DBF – 2003 SSCE – 1999 FSLC – 1993	Computer Operator II
7.	Ucho, Aondongu	D.P. in Computer- 2009	Messenger/ Cleaner
8.	Abe, Blessing	NCE -2005 SSCE – 2001 FSLC – 1994	Messenger/ Cleaner
9.	Zaki, Peter	Dip In Computer	Computer Operator II

FINANCE

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Kondoun, M'Ovul Shiva-Rae	B.Sc, MBA, CPA, ACMA, CNA	Financial Controller
2.	Akpera, Steven Vershima	B.Sc., MBA	Principal Account
3.	Ipilakyaa, Evelyn Iveren	B.Sc., M.Sc.	Accountant I
4.	Sende, Moses Terseer	B.Sc.	Account I
5.	Jimin, James	OND, HND	HEO (Accounts)
6.	Ikoamo, Barnabas Terhemen	OND, B.Sc.	Account II
8.	Tor, Susan	ND, HND	Confidential Secretary II
5.	Sule, Arome Iyaji	ND	Computer

			Operator
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JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Sachia, Msurshima	APDA – 2000, Dip in Computer – 1997, SSCE – 2010, FSLC - 1986	Asst. Executive Officer- (Accounts)
2.	Onah, Emmanuel O.	DAC – 2007 SSCE – 2002 FSLC - 1991	Asst. Chief Clerical Officer (Accounts)
3.	Ahula, Grace	Cert. in Computer – 2005 SSCE – 2006 FSLC - 1997	Computer Operator I
4.	Ada, Timothy Ochepo	SSCE, FSLC	Messenger/Cleaner
5.	Kwange, Tyoyima	SSCE	Clerical Officer (Accounts)

AUDIT

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Nambe, Scholastica	HND, PGD, MBA	Chief Internal Auditor
2.	Tor, Anna	B.Sc.	Internal Auditor I
3.	Angwa, Mary Engo	ND, HND, PGDM	H.E.O (Audit)
4.	Egbe, Victoria	B.Sc., PGDM	H.E.O (Audit)
5.	Udah, Ezekiel Terngu	Dip., NCE	Executive Officer (Audit)
6.	Akpa, Victor	Dip.	Executive Officer (Audit)

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Tyokper, Terdoo	Dip-in Computer -2001, ND – 1999, SSCE – 2001, FSCL – 1991	Computer Operator I
2.	Ioryisa, Ushalumun	SSCE – 2008, FSLC – 1999	Messenger/Cleaner

MEDICAL LIBRARY

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Ape, Rebecca	Ph.D (2012), MLS (2005), BLIS (1994)	Deputy U.L.
2.	Ode, Moses ijoko	MLS (2005), BLIS (1999)	Asst. Librarian II
3.	Abari, Grace Manyi	B.Sc (2004)	Graduate Librarian
4.	Idoko, Kate	B.Sc (2011)	Snr. Lib. Officer
5.	Tarzaan Patience M.	B.Sc (2010)	Graduate Librarian
6.	Yisa, Solomon Terkimbi	B.Sc (2007)	Senior System Analyst
7.	Tinder, Ornguga John	ND (1995)	Ex. Officer
8.	Gera, Martins S.	DIP, CERT. LIB	Lib. Officer
9.	Orhena Esther M.	Dip - 2003 SSCE – 2002 FSLC – 1994	Stores Officer

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Usongo, Victoria	FSLC – 1985, GRADE II 1991 WAEC-2001, DACE,2004 WAEC/NECO-2010	Library Attendant
2.	Aba Emmanuel U.	FSLC – 1995 WAEC -2001	Library Asst.
3.	Aluko Eunice	FSLC, 1999 SSCE -,2004 DLS,2010	Library Asst
4.	Ikande James E.	FSLC – 1989 SSCE,2004	Library Asst.
5.	Achanya Rose E.	FSLC – 1985 SSCE – 1991 Diploma - 1998	Library Asst.
6.	Onah Mary	FSLC – 1991 SSCE – 2008 DPM - 2010	Library Assist
7.	Ormye, Terwase	Dip, Cert. Lib	Senior. Lib. Assist
8.	Vivian Ojowu	NECO – 2003	Library Attendant
9.	Egbe E. Ebute	FSLC,1995 WASSCE – 2001	Messenger/ Cleaner

STUDENT HOSTEL

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Okwori, Augustina Ane	Adv. Dip., PGD	H.E.O.

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Agum Benjamin T.	SSCE – 2002 FSLC – 1990	Snr. Clerical Officer
2.	Ayoo, Victoria	SSCE (1994)	Messenger Cleaner

MAINTENANCE

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Tyohinah, Jacob	ND, HND, PGD	Principal Engr.
2.	Illah, Michael Agbo	ND, HND	Higher Technical Officer
3.	Uchichi, Benjamin Fave	B.A	Admin Officer

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Veregh T. Benjamin	FSLC – 2002 Labour Trade Test – 2008 NABTECH -2009 Dip.Comp.-2009 Fed. Craft Cert.2009	Senior Sewage Asst.
2.	Nyoosu T. Peter	FSLC- 1992 SSCE – 2000 Trade test 123-2010	Technical Asst. II
3.	Iornenge M. Becky	FSLC – 2003 SSCE – 2009 Dip. Desktop Pub.2009	Clerical Officer
4.	Benjamin O. Iorde	Trade test Cert. 2005 NABTEB - 2005	Technical Asst. II
5.	Akue M. Peter	FSLC – 1997 SSCE – 2004 NCE – 2010	Messenger/ Cleaner
6.	Igba Priscilla	FSLC – 1983 SSCE – 2003 WAEC - 2011	Messenger/ Cleaner
7.	Omadachi Adeghahi	FSLC – 1986 FTT 13 -2007 SSCE - 2008	Technical Asst. I
8.	Jacob Orhange	FSLC – 1982	Asst. Technical

		WAEC, TEC – 1994	Officer
		LTT II -2005	
		LTT II-2006, NABTEB - 2010	
9.	Tsegha A. Philip	FSLC – 1993, SSCE-2003	Senior Tech. Asst
		Trade Test -2005	
		Trade Test Cert 2-2006	
10.	Daniel T. Iwambe	FSLC – 1996	Technical Asst.
		SSCE – 2003	CONTISS 4/5
		Lab. Trade Test - 2008	1-10-2013
11.	Egahi, Veronica	SSC# (1997)	Messenger/Cleaner
12.	Ajah, Margaret	SSCE/1993	Messenger/Cleaner

STUDENT AFFAIRS

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Iortyer, Matthias Fate	B.A (1996)	Administrative Assistant

STORES

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Igbudu, Patricia I.	ND, HND	Higher Stores Officer
2.	Ikor, Emmanuel I	Effective Store Keeping Cert. Purchase & Supply Cert.	Stores Officer
3.	Ameh, Theresa	HND, PGD	Higher Stores Officer
4.	Ameh, Monica H.	Dip. (1996)	Senior Executive Officer (Sales)

MERU

S/N.	NAME	QUALIFICATION	STATUS
1.	Helen, Oche Agada	B.Sc (2009)	H.E.O
2.	Onah, Ajoma Charles	BSc	H.E.O Admin

JUNIOR STAFF

S/N.	NAME	QUALIFICATION	STATUS
1.	Tyonum, Susan N.	DTA (1994) SSCE (1999)	Messenger/Cleaner

SECURITY UNIT (SENIOR SECURITY STAFF)

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Capt. OgbojeRtd		I/C Security

2.	Mede, Peter D.	Dip. (1996), Adv. Dip. (2001)	Patrol Supervisor
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TRANSPORT UNIT (SENIOR STAFF)

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Alama, Amedu	FSLC, Trade Test 1,2,&3	Chief Driver
2.	Adasu, Kor	FSLC, Trade Test 1,2,&3	Chief Driver
4.	Iorwuese, Mtagher	FSLC, Trade Test 1,2,&3	Chief Driver

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Chaga, Godwin A.	SSCE – 1997 Trade Test 1,2,&3 1993	Driver Mech. I
2.	Songu, Shagbaor J.	SSCE – 2003 Trade Test 1,2&3 – 2007	Driver

ANIMAL HOUSE

S/N.	NAME	QUALIFICATIONS	STATUS
3.	Orhena, Gabriel T.	ND, HND, PGD	Technologist I

JUNIOR STAFF

S/N.	NAME	QUALIFICATIONS	STATUS
1.	Ayongo Terseer Frank	ND, AHP-2003 SSCE- 1996	Asst Tech. officer
2.	Ugber Rita T.	Dip in Computer – 2009 DPA-2008 SSCE -2009	Computer Operator II
3.	Azaawe Joshua Luper	CHEW – 2002 SSCE – 2000	Messenger/ Cleaner
4	Iortim, Francis I.	DIF (2009) DIC (2010) SSCE (2012)	Computer Opttr