Sept 12th, 2004

GULU UNIVERSITY

FACULTY OF MEDICINE

CURRICULUM FOR THE BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBCHB) DEGREE PROGRAMME

JULY 2004

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G.1 Philosophy of the Curriculum

The medical doctor, as a leader of a health team should be competent in areas other than patient care alone. A significant part of this training should be carried out in the community in which the doctor is going to practice. The broad objectives of this curriculum are:

1. To provide a sound scientific and professional basis for the production of doctors who would be capable of working anywhere in Uganda.
2. To provide such training as to equip the health personnel to render primary health care [PHC]. In this regard, the curriculum has been oriented to give greater emphasis on primary health care.
3. To produce doctors who satisfy internationally recognisable standards, and who should undertake training into specialised areas of medicine and health sciences.
4. To produce doctors with sufficient management ability to provide leadership in health care delivery.

This curriculum has defined the following eight areas in which a doctor working in Uganda should be competent.

a) Promotion of health and prevention of disease
b) Patient Management
c) Medico-Legal duties
d) Research
e) Management & Administration
f) Teaching and learning
g) Understanding the role of Traditional Medicine
h) Community Leadership
i) Ethics

In order to achieve these objectives emphasis has been put not only on science subjects but also the humanities such as sociology, Psychology and Anthropology as well as Communication skills. Community clerkship during which time the student will be living in the community will have the same weight as the clinical subjects. Primary Health Care will be emphasized during Community clerkship. The training will be Community Oriented but will also be problem solving and the students will be guided to do more self-learning. It is expected that this will emphasize to the students that the University is a place of learning rather than teaching. Integrated teaching will be done as much as possible.

Main features of the curriculum are:

1. It is giving prominent attention to Primary Health Care.
2. The PHC teaching will be multidisciplinary in which all departments should participate.

3. The training of doctors will follow the Community Based Education and Service (COBES) principle. In keeping with the concept of social justice, the faculty is committed to providing community service in the course of the training.

G. 2. Designation of departments and course programmes in the faculty of medicine.
The programme will be organised in courses that are designed to enable the student to acquire the necessary skills, knowledge and attitude to function as a health care provider nationally and internationally. The departments shall not be based on subjects, but on courses that will cover all areas of competence that are necessary for the student to function as a doctor.

Courses shall be organised under the following learning areas that shall be designated as departments for coordination and administrative purposes:

ANATOMY	MENTAL HEALTH
PHYSIOLOGY	PUBLIC HEALTH
BIOCHEMISTRY	REPRODUCTIVE HEALTH
PHARMACOLOGY	PAEDIATRICS AND CHILD HEALTH
MICROBIOLOGY AND IMMUNOLOGY	MEDICINE
PATHOLOGY	SURGERY
RADIOLOGY	

G. 3. Programme Duration and Organisation
The MBCHB programme will be organized in courses, some of which shall be grouped into blocks, which will be run according to the semester/credit system. The academic year will consist of two semesters of 17 weeks each and a recess term of 10 weeks. In the third year, both semester one and two will run for 18 weeks. There will be no recess term in the fifth year. The regulations for the semester system are appended.

G. 4. Teaching and Learning Strategies
Teaching and learning will be student centered. The teachers/tutors will direct the learning of the student by identifying and, sometimes producing learning resources.

The student centred approach to learning and training requires a substantial rearrangement of the teaching strategies in order to allow each of the student to be followed individually in his learning process . Professors will give '*compact*' courses aiming at horizontal and vertical integration with their colleagues, then they will give time and space to the students to go through the learning objectives and the proposed training. Students will refer back to the professors before being evaluated while- in-training and at the end of the semester.

For each integrated course learning objectives (what is expected the student learns, is able to and should behave as, at the end of the courses) will be described. Objectives will be intermediate and specific (i.e. containing detailed items and evaluation criteria) .

Problem Based Learning and Group Work will be proposed for each integrated course and will be part of the work up of the individual student. PBL will, since the beginning of the courses, be oriented toward the clinical approach . The students will

become very soon familial with the man/patient , since time will be spent in Clinical Settings from beginning.

Learning Resources will be made available to students in the form of human experience and clinical setting, books and periodicals, on-line learning facilities and learning packages produced locally or acquired from outside. Working in groups is another major learning resource widely available.

The programme delivery modes will include, but not limited to:

1. Interactive and Integrated lectures
2. Practical sessions. This will include dissections and laboratory practicals in biomedical sciences. The practicals will be designed to enhance the theory learnt and sometimes to bring new knowledge.
3. Seminars and Tutorials.
4. Projects in some disciplines.
5. Ward and Post Mortem clerkships
6. Community based education and service
7. Grand Rounds

G. 5. Resources

The students will be exposed to the following resources:

1. Faculty staff
2. Recommended textbooks
3. Their peers
4. Library facilities i.e. computers, books, journals.
5. Skills lab.
6. Laboratory (Teaching and side labs).
7. Wards
8. Consultant clinics
9. Facilities and staff at the Community Training Sites.
10. Guest Lectures
11. E- Learning
12. Telemedicine

Skill's Laboratories

Skills will be learned in the laboratory and clinical practices, but the University is setting *ad hoc* Skill's Learning Laboratories. They will be equipped with human anatomy and physiology dummies, microscopes, laboratory equipment and instruments to be used by students.

Students will have a booklet listing the desired skills to be acquired and containing the trainer's evaluation. Students will also be invited to acquire skills in the daily lab and clinical practice. Rotations among teaching Laboratory and Clinical structures will offer a wide setup to acquire skills .

Multimedia classrooms , with space available for each student and INTERNET connections will be a basic resource to acquire skills. Indeed a wide set of skill's learning packages are actually available by renowned University sites.

Professors will orient the students to the choice of sites and learning material.

G. 6. Regulations

This is a five-year academic programme. Except for the third year that shall have 18 weeks per semester, every academic year shall have two 17 week semesters and one 10 week recess term. There shall be no recess term in the fifth year. The Programme shall be governed by the general regulations and statutes of the University and, in addition, by regulations of the faculty of Medicine.

G. 7. Admission Requirements

G.7.1. Direct entry

For admission to the MBChB degree programme under the Direct Entry Scheme, a candidate must have:-

i) Sat the Uganda Certificate of education examinations (or equivalent) and obtained a certificate in it.
ii) Obtained two advanced level passes in Biology (or Zoology) and Chemistry taken at the same sitting of the Uganda Advanced Certificate of Education. He/she must also have done Physics or Mathematics, and obtained at least a subsidiary pass in it.
iii) Obtained minimum-weighted points as shall be determined by the Admissions Board.

G7.2 Mature Age Entry

For admission on to the MBChB Programme under the Mature Age Entry Scheme, a candidate must sit and pass the Mature Age Entrance Examinations set and marked by Gulu University. He/she must satisfy all other University requirements for admission to the University under this scheme.

G7.3 Diploma Holders Entry Scheme

For admission into the MBChB Programme under the Diploma Holders Entry Scheme, a candidate must have the following:-

1. A diploma or certificate in a health discipline
2. At least two principal A-level passes in related subjects
3. Working experience of at least two years in those related fields

Such diploma holders shall include:

a) Medical Laboratory Technologists
b) Radiographers
c) Physiotherapists
d) Anaesthetic Officers
e) Clinical Officers
f) Ophthalmic Clinical Officers
g) Environment Health Officers

h) Pubic Health Officers
i) Pubic Health Dental Assistants
j) Pubic Health Assistants
k) Dispensers/Pharmacy Technicians
l) Psychiatry Clinical Officers
m) Orthopaedic Officers

This category shall also include A-Level certificate holders listed below:

- Uganda Registered Nurses
- Uganda Registered Midwives

G7.4. Degree Holders Entry Scheme

For admission into the MBChB Programme under the Degree Holders Entry Scheme, a candidate must have the following:-

- A bachelor's degree in Science (BSc) from a recognized University and at least two principal A-level passes in related subjects. The BSc should be at least Second Class Lower level.

G. 8. Examination and Degree Award Regulations

At the end of each semester, all candidates will be required to sit written, oral and practical examinations (where applicable) for each course.

There shall be a board of examiners, which shall be composed of external and Internal Examiners appointed by Senate on the recommendation of the Faculty of Medicine. The Board of examiners shall receive, consider and recommend to the Faculty Board, which shall in turn recommend to Senate for approval, the final examination results of each candidate.

To be awarded the degree of MBChB, a candidate must sit and pass all the prescribed courses where in addition to some specific Faculty Regulations, the general University examinations Regulations shall apply.

G.8.1. In-Training Progressive Assessment

Progressive assessment shall contribute 30% of the marks in any University examination. This percentage may be revised upwards.

For pre-requisite courses, there will be promotional examinations/test in which the pass mark will be 50 %. Promotional examinations/tests will not form part of the University examinations and will not be included in the transcripts i.e. non-credit courses.

G.8.2. Certificate of due Performance

A student shall be responsible for keeping a record of her/his clinical experience in a clinical record book, which should be duly signed by the student, clinical supervisor and course lecturer; for presentation to the Head

of department, before a certificate of due performance can be issued. Attendance of classroom, clinical and field work shall constitute 10% of the Progressive Assessment mark, the total of which is 30%.

A candidate will be denied a Certificate of due Performance in any course, if attendance and performance in class, clinical and practical are deemed unsatisfactory.

G.8.3. Degree Award

G.8. 3. 1. The degree of MBChB shall be awarded without classification but performance in individual courses shall be graded as follows:

80	-	100	Distinction
70	-	79	Credit
50	-	69	Pass
0	-	49	Fail

G.8.4 Assessment and Grading

That each course be assessed in two parts:

a) Progressive Continuous assessment which should contribute 30%
b) Examination shall contribute a maximum of 70% of the total marks.
c) That each Course should be graded out of a maximum of one hundred (100) marks and assigned appropriate letter grades and grade points as follows:

Marks %	**point**	**Later Grade**	**Grade**
80 - 100		A	5
75 - 79.9		B+	4.5
70 - 74.9		B	4.0
65 - 69.9		B-	3.5
60 - 64.9		C+	3.0
55 - 59.9		C	2.5
50 - 54.9		C-	2.0
45 - 49.9		D+	1.5
40 - 44.9		D	1.0
35 - 39.9		D-	0.5
Below 35			

d). That the minimum Pass Mark in any course shall be 50%
e). That no Credit should be awarded for any Course in which a candidate fails. When a student has to retake a Course he/she has to wait and retake that Course when it is next offered.

G.8.5. Progression

Progression of a student shall be classified as Normal, Probationary or Discontinuation.

G.8.6. Normal Progress
Normal progress occurs when a student has passed each of the specified courses with a minimum grade point of 2 and has a CGPA of 2 or above.

G.8.7. Probationary Progress
a) A student shall be placed on probation:

i) when he/she has failed a core course or
ii) if his/her GPA or CGPA is less than two (2.0)

b) When the grade Point Average of a student goes up to 2.0 or above and the student has passed all compulsory core courses in the following relevant semester, then t he probationary status is removed. The probationary status serves as a warning to students that their performance is below the level required.

G.8.8. Withdrawal from a programme or course
A registered student may choose to withdraw from a programme/course(s) for various reasons. Such a student can resume the programme/courses within three years if the cause of the withdrawal is not unsatisfactory progress or conviction for a criminal case.

G.8.9. Discontinuation
That a student is discontinued when he/she has received three consecutive probations based on CGPA or failing the same core course(s).

G. 8. 10. Failure of a Core or Prerequisite Course
When a student fails in a prerequisite course with a mark between 40% and 50%, i.e. GP below 2 but 1 or above, he/she shall be allowed to proceed to the next Semester/Course and retake the failed course when next offered and without penalty. If the level of failure is very bad (less then 40%), then the student should not be allowed to proceed to the next Course but to wait and retake the failed Course when offered.

G.8.11. Retaking of a Course
A candidate can retake a Course so as to pass it if he/she had failed it before or to improve the grade if the first pass grade was low. The Transcript will indicate so if done. Retaking a course means attending lectures, doing required progressive course work and sitting the end of course examinations.

G.9. Structure of Curriculum
The courses in the MBChB programme shall include Core (compulsory), Audited, Elective and Pre-requisite courses, as determined by the board of the faculty. Refer to "Manual for the Operations of the Semester/Credit Unit System" for explanation on these courses.

COURSE CODES are named by year/course sequence /semester of course i.e. a course in Internal Medicine being offered for the first time in the first year during the first semester would be MED 111(year/sequence/semester).

AUDITED COURSES* An audited course shall be a course offered by a student for which a credit shall not be awarded, but the student shall need to obtain a pass mark in order to proceed to the next year.

CODE	COURSE NAME	C. U.	START DATE
YEAR I	**SEMESTER ONE**		
MED01	Principles of Medical Education	01	04/10/04
BCM 112	Introduction to Biochemistry	03	05/10/04
PHM 113	Biostatistics, Epidemiology and Introduction to Research Methods	05	05/10/04
BIO 111		3	05/10/04
*COM111	Communication and Computer Skills	02	18/10/04
*CLE	Clinical/ Hospital Experience	02	18/10/04
		14	
	SEMESTER TWO		
111 ANA	Histology and Embryology; Gross Anatomy Upper & Lower Limbs) Thorax, Abdomen,	08	14/02/05
PHY 111	General Physiology, Motor, Digestive and Respiratory Physiology	07	14/02/05
		13	
	RECESS TERM		
*MEN 113	Sociology and Anthropology	04	20/06/05
ANA 122	Pelvis and Perineum	02	
PHY 122	GIT and Renal Physiology	02	
YEAR II	**SEMESTER ONE**		
ANA 231	Head , Neck and Neuro-system	04	
PHY 231	Neurophisiology and sensory	03	
BCM 221	Chemistry of Biological molecules and Metabolism	04	
PHA 211	General, Autonomic and Autopharmacoids	03	
MCB 211	Bacteriology, virology and mycology	03	
PAT 211	General Pathology and Histopathology	03	
		20	
	SEMESTER TWO		
ANA 242	Neuroanatomy	04	
PHY 242	Neurophysiology	04	
BCM 232	Special Topics in Biochemistry	03	
PHA 222	Chemotherapy of Infections and Malignancies	03	
MCB 222	Immunology and Parasitology	04	

PAT 222	Systemic Pathology and Morbid Anatomy	03	
		21	
	RECESS TERM		
PAT 233	Haematology	03	
MCB 233	Virology and Mycology	04	
MEN 223	Psychology	02	
PHM	Disease Control and Environmental Health	05	
		14	

YEAR III	**SEMESTER ONE**	
PHA 331	Systemic Pharmacology, Blood and Endocrine Pharmacology	04
PCH 311	Introduction to Clinical Methods in Paediatrics and Paediatrics & Child Health Practice	04
SUR 311	Clinical Methods and Principles of Surgery Practice	04
PAT 341	Forensic Medicine & Toxicology and Medical Ethics	04
		16
	SEMESTER TWO	
PHA 342	Neuro-Psychopharmacology	04
MED 312	Clinical Methods and Skills in Medicine	04
OGN 312	Clinical Methods and Theory in Obstetrics and Gynaecology	05
		13
	RECESS TERM	
MEN 333	Psychiatry	04
RAD 313	Radiology	02
PHM 333	Community Health Proposal Development	04
		10
YEAR IV	**SEMESTER ONE**	
MED 421	Medical Specials	08
		08
	SEMESTER TWO	
SUR 422	Surgical Specials	08
		08
	RECESS TERM	
PHM 443	Community Diagnosis and Primary Health Care; Research Project	05
PHM	Health Poliocy and Management; Research Project	04
		09
YEAR V	**SEMESTER ONE**	
PCH 521	Advanced Clinical Methods in Paediatrics and Paediatrics & Child Health Practice	05
SUR 531	Essential Surgical Skills	05

		10
	SEMESTER TWO	
OGN 522	Advanced Clinical Skills and Theory in Obstetrics and Gynaecology	05
MED 532	Advanced Clinical Methods and Skills in Medicine	05
		10
	TOTAL CREDIT UNITS	**177**
	TOTAL CREDIT HOURS	**2,655**

G.10. COURSE CONTENT DESCRIPTION

YEAR I

SEMESTER II

ANA 111 Histology and Embryology; Anatomy of the Upper and Lower Limbs -CU 05

The Cell, Epithelial tissues, General connective tissues, Cartilage and bone, Blood and blood vessels, Reticulo-endothelial system, endocrine and exocrine glands, nervous, Muscles, Gametogenesis, Fertilization and blastocyst formation, Bilaminar germ disc, Ectodermal, endodermal and mesodermal derivatives, Foetal period, Foetal membranes and placenta, Congenital malformations.

Gross Anatomy will cover; Introduction and Anatomical nomenclature, Surface anatomy and Osteology of upper limb, Mammary gland, Pectoral region, Axilla and brachial plexus, shoulder joint, Scapular region, The arm, elbow joint and cubital fossa, Forearm and wrist joint, The hand, Surface anatomy and osteology of lower limb, Hip joint and gluteal region, compartments of the thigh, Knee and popliteal fossa, The leg, Ankle, sub-talar and mid-tarsal joints, The foot.

PHY 111 General Physiology, Blood and Respiratory Physiology

This covers cell function, transport across cell membrane, body fluid and electrolyte distribution, concept of physiology regulation, nerve generation, and transmission of impulses with muscle contraction as response to stimuli. Furthermore, blood composition, cells, function, indices, bile formation, coagulations, factors, process, blood groups, transfusion iron Vitamin B and folate metabolism is covered including anaemia and jaundice. Finally, mechanism of respiration, ventilation, gases exchange, gas transport, control of respiration, respiratory function and respiratory failure is discussed.

COM 111 Basic Communication and Computer Skills 02 CU

Communication skills will cover the following concepts:

a) Interviewing skills i.e. meeting and interviewing patients for the first time; basic elements of a consultation.

b) Diversity in communication i.e. interviewing patients of different ages, ethnic and social background.
c) Gathering information i.e. basic principles of gathering information; gathering medical and social information in clinical settings.
d) Giving information i.e. basic principles of giving information in clinical settings.
e) Difficult information i.e. speaking with patients with serious medical problems or attendants of patients with serious medical problems.
f) Communication in groups i.e. introduction to working in groups.
g) Presentation and writing skills i.e. Basic principles in presentation and writing skills.

This introductory course will be conducted as an audited course to enable the student acquires basic computer skills. The course will cover Computer basics; Operating systems; Word processing; Spreadsheets; Database management; PowerPoint Presentation; Medical Multimedia; The Internet and the Healthlink and Telemedicine.

SEMESTER II

ANA 122 Thorax, Abdomen, Pelvis and Perineum 06 CU
Learning issues here will consist of Thoracic wall, diaphragm, Surface projections of the lungs and pleura, Mediastina, the heart, the lungs and pleura, anterior abdominal wall. Inguinal canal, peritoneum, oesopaghus and stomach, small intestines, Hepato-biliary system, pancreas and spleen, Large intestines, Kidney, ureter and suprarenals, Posterior abdominal wall.

Discussion and dissection of the gross anatomy and arrangement of structures of Bony pelvis, Pelvic wall, Pelvic viscera, Perineum, Genitalia and associated congenital malformations

PHY 122 Cardiovascular, Gastrointestinal Tract and Renal Physiology 05 CU
This course covers general features of circulation, functions, haemodynamics, heart cycle, electrical activity, ECG, cardiac output, arterial blood pressure, microcirculation with lymphatic system. In addition, regional circulation, circulatory response to exercise, posture, gravity, heart failure and shock is discussed. Furthermore, functions of gastro internal tract namely endocrine and exocrine secretions, deglutination, digestion, absorption and defaecation are covered. Together with mortility, liver function, billiary metabolism, assessment of GIT and malabsorption. Finally, the renal system as a system for the formation and excretion of urine, regulator of volume, electrolyte and pH.
Assessment of Renal functions and its endocrine role is discussed.

BCM 112 Introduction to Biochemistry 03
. Acid-Base Chemistry; Elementary thermodynamics; Chemical Kinetics and Orders of reactions; organic reactions.
Importance of Biochemistry to medicine- levels of medical care and Biochemistry. Membrane and cell structure. Techniques used in biochemistry and medicine. Protein

structure and function –primary, secondary and tertiary structure of proteins. Proteins as informational molecules, proteins in blood; digestion, absorption and transport of amino acids in the GIT. 3-dimentional structure of proteins, molecular basis of protein structure-structural proteins etc, abnormal haemoglobins.
Enzymes: Protein nature of enzymes; location and function of enzymes; factors affecting enzyme action, cofactors, coenzymes etc. Activation of zymogens; blood clotting and enzymes. Enzymes in medicine.

RECESS TERM

MEN 113 Sociology and Anthropology 04
The course in Sociology will make the students learn the various factors responsible for social change; the effect of social change on health; gender specific health issues; social inequalities in health. The basic concepts that will be highlighted will include:
Behaviour related to disease and health: Attitudes; sick role behaviour, self care, health seeking behaviour, health promotion.
Health risk behaviour. Social structure and health/disease patterns.
Doctor-Patient relationship.
The family: Types and functions of the family; the process of socialization; divorce and remarriage; the family and illness; family violence; specific family pathology.
People and work: Occupation and disease; lifestyles; burnout.
Social problems.

Basic concepts of Anthropology that will be highlighted include:
Antiquities and the concept of race: Origin of life and the long history of the world; origin and development of HOMOsapiens from the period of the Progimii; race is a biological concept; classification of races; race differences.
Social institutions: Kinship and descent; sex; marriage and family; societies in historical perspective; preliterate societies.
The concept of culture: Aspects of culture e.g. religion, education, economy, politics, law, aesthetics etc. Culture and health.
Indigenous African healing: Health care and the environment; traditional healers and their medicine; herbalists; priest-deviners, calling and initiation; training and graduation; classes of diviners.
Medicinal knowledge; control of forces; natural means to combat supernatural causes, medicinal plants, conditions and occasions for which medicines are used; the special conditions of “African” diseases; public lies; hysteria; hypnotism, spell etc.

PHM 113 Biostatistics, Epidemiology and Introduction to Research methods 05
Definition and principles of Epidemiology; Determinants of health; counting disease and measuring health. Understand methods and procedures of community diagnosis; design and execute simple random and cluster surveys; use of different study designs; show ability to collect, analyze and interpret data; use of contingency tables; interpret and apply available statistical data obtained from disease surveys; appreciation of outbreak

investigation; control of outbreaks (epidemics); understand the different surveillance systems; management of resources and personnel in the control of diseases.

Various sources of data and use; vital health statistics; methods of statistical analysis and importance of research; normal probability curve; measures of central tendency; variation, skewness, elementary probability theory, sampling concepts; Biostatistics, dependent and independent variables in operational terms; methods of data presentation; rates and ratios; confounding variable, bias. Scales of measurement in statistics.

Importance of research, components of research proposal and importance of each component principles and importance of research designs; different types of research designs; sample sizes; level of significance; validity, reliability; types of data collection instruments; ethics in research; methods of social research; define a community; factors that influence health in a community; qualitative and quantitative methods of collecting data from a community.

YEAR II

SEMESTER I

ANA 231 Gross Anatomy of Head and Neck CU 04
Vertebral column, Osteology of skull and face, embryology of skull and face, the scalp and muscles of facial expression, Cranial nerves, Triangles of the neck, Root of the neck, thyroid and parathyroid glands, Temporal and infratemporal fossae, Temporo-mandibular joint and mandible, Salivary glands, The mouth, Nose and paranasal sinuses, Pharynx and Larynx, Pharyngeal arches and their derivatives, The ear, The orbit, the eye.

BCM 221 Chemistry of biological molecules and metabolism 04
Introduction to the study of intermediary metabolism. Interrelations in metabolism.
Lipid chemistry, digestion, absorption and metabolism, including phospholipids, prostaglandins, lipidoses.

Metabolism of amino acids; amino acid degradation and biosynthesis. Essential and non-essential amino acids. Ketogenic and glucogenic aminoacids. Regulation of amino acid metabolism. Intergration and convergence of metabolic pathways.

Introductory Molecular Biology- Nucleic acids and biochemistry of heredity. Discovery and properties of the genetic materials; DNA replication and cell division. The mechanism of DNA replication in prokaryotes and eukaryotes. DNA recombination and repair. The implication of these processes in medicine. Coding properties of DNA-RNA; mutagens and mutation. DNA transcription and the different RNA products of transcription. Mechanism of protein synthesis, control and regulation of protein synthesis. Biosynthesis: Nucleic acids, Carbohydrates, Lipids and Pophyrins. Biochemical basis of inherited diseases. Tissue and organ Biochemistry i.e. blood as a tissue.

PHY 231 Endocrine and Reproductive Physiology 03

The course covers general principles of hormone synthesis, secretion, transport, classification, properties, mode of actions and control mechanism. Specific functions of each endocrine gland, control and effects of hypo and hyper functions, assessment of function of each endocrine gland. Furthermore, male and female reproductive physiology and hormones involved is covered with various methods of assessment of function.

PHA 211 General, Autonomic and Autopharmacoids 03

To introduce the meaning of the word "drug" and the general principles underlying the use of drugs. The student is then introduced to the pharmacology of the autonomic nervous system (ANS) at this juncture because the drugs that affect this system influence many areas of the body. Opportunity is taken to discuss the Autacoids (Local Hormones) and uterine Pharmacology since these drugs principally act by altering the neuro-humoral transmission.

MCB 211 Microbiology 1 – Bacteriology 03

This will cover Infectious diseases; Nature and classification of Bacteria of medical importance. Mechanisms of pathogenicity and virulence. Microbial metabolism and multiplication. Exotoxin-producing bacteria. The process of bacterial destruction (sterilization and disinfection). The normal flora of the human body. Description and identification of the following organisms: Salmonella typhi and paratyphi, shigella spp. Mycobacterium spp. Brucella spp. Corynobacterium spp. Clostrdium spp. Bacteriodes spp. Haemophillus and Bordetella spp. Spirochaetes, Listeria, Yersinia spp. Vibrios, Campylobacterium spp. Enterobacteriaceae, Ancinetobacterium spp. Pseudomonas spp. Actinomyces and Norcadia, Chlamydia, Mycoplasma, Rickettsia spp.

The practical sessions will enable the student to list the basic safety safety procedures in the microbiology laboratory; prepare a film and stain with Gram reaction, Ziehl-Nelsen reaction, negative staining reaction and pore staining reaction. The student will also learn to prepare wet mounts to show pus cells, shape of bacteria and motility; use light microscope; inoculate agar plates; describe colonial appearances of bacteria on an agar plate. The practical sessions will also enable the student to count bacteria in water, milk or food, clothing (hospital blankets, linens and urine; demonstrate bacterial flora of the skin, mouth, hair, teeth and gingival crevices. The student will also learn how to perform and interpret sensitivity tests using disk impregnated with antibiotics; perform sterilizing efficiency test for boilers and autoclaves; and perform slide agglutination tests for staphylococci, Salmonella spp. And E. coli.

PAT 211 General Pathology and Histopathology 03

The aim is to introduce students to general aspects of pathology, including techniques used in Pathology. It will enable students to understand the basis of pathological process. It will cover causes of diseases, inflammation, healing and hypertrophy, immunopathology, host-parasite relationships, types of infections, disturbances of blood flow and body fluids, miscellaneous tissue degeneration and deposits and general

features of tumours; types, examples and aetiology of cancer. There will be practical work and demonstration of clinical cases.
Lectures and practicals in histopathology will be conducted to illustrate the application of theoretical knowledge to histopathological diagnosis. The student is expected to then be able to recognize tissue changes that denote acute and chronic inflammation, granulomatous inflammation, benign and malignant tumours.

SEMESTER II

ANA 242 Neuro-anatomy CU 04
Cranial cavity, Development of CNS and spinal cord, Topography of CNS and spinal cord, Neurone and histology of CNS, Blood supply to the brain, spinal cord, Hind brain, Mid brain, Cerebellum, Cerebrum, Reticular formation, Limbic system, Ventricular system, Tracts, Cranial nerves, Autonomic nervous system.

BCM 232 Special Topics in Biochemistry CU 03
Introduces students to the biochemistry of nutrition, immunology and endocrinology. It covers: Nutritional biochemistry, including vitamins and mineral metabolism; Biochemistry of hormones and hormonal actions i.e. actions of CAMP, adrenaline, glucagons, insulin; diabetes; Chemistry of immune system; haem degradation, bile pigments, liver conjugation. Biochemical transformation of foreign substances; detoxification mechanisms. Erythrocyte metabolism; excitable membranes. Muscle and mechanism of muscle contraction; biochemistry of muscular dystrophy. Special aspects of cardiac muscle metabolism. Biochemistry of vision; cancer and bacterial chemistry. The students continue practical in clinical biochemistry and do case studies to expose them to some typical nutritional problems and basic biochemical techniques as used in clinical biochemistry. Case studies are used to sharpen the students' analytical skills.

PHY 242 Neurophysiology CU 04
This course covers excitable tissue;, nerve and muscle, synaptic transmission receptors and receptor physiology, sensory efferent system pain, motor system – control of tone, posture, movement and equilibrium, autonomic nervous system, special senses i.e. vision, hearing, smell and EEG, temperature regulation, limbic system – emotions, sexual behaviour, learning and memory, speech and cerebral dominance, nervous function and localization of lesions.

PHA 222 Chemotherapy of Infections and Malignancies CU 03
In this course, chemotherapy refers to the administration of drugs to eliminate pathogenic bacteria; fungi, viruses, protozoan, helminthes and cancer cells from the body. The course covers chemotherapy of common tropical infections and infestations, emphasizing the various groups of drugs, their mechanisms of action, selective toxicities, therapeutic uses and adverse effects.

MCB 222 Immunology and Parasitology CU 04
During this course the student will be helped to understand the biology of parasites which cause disease in man, their, mode of transmission, diagnosis and control. The

student will also be introduced to basic immunology and use of immunological principles in diagnosis, treatment, prevention and control of diseases.

PAT 222 Systemic Pathology and Morbid Anatomy CU 03
The aim is to give the students knowledge of pathological processes as they affect various organs and systems. It will provide students with basic knowledge of the disease they are likely to encounter most often in the clinical years. There will be demonstration of clinical cases and practicals. Morbid Anatomy will continue during the three clinical years through post mortem demonstrations.

RECESS TERM

MCB 233 Microbiology III- Virology and Mycology CU 05
Understanding the biology of viruses and fungi that cause disease in man; examine modes of transmission, diagnosis, treatment and control.

PAT 233 Heamatology and Genetics CU 04
This course will introduce students to the investigation of abnormalities of cells of the blood and their precursor in haemopetic tissue and haemostasis, including clotting mechanisms. There will be practicals to introduce the students to basic haematological techniques as used in clinical haematology.

Basic genetic organization in cells and chromosomes, cell division, gene structure and function. Genetic code, regulation and mutation. Molecular biology. Principles of genetic inheritance and gene action, Sex determination, Sexual differentiation, Genetics of common diseases including cancer, Metabolic basis of inherited diseases, Genetic mutations, Population genetics. Biotechnology application.

Diseases due to chromosomal abnormalities, chromosome harvesting, Prenatal diagnosis and genetic counseling, recombinant Genes (gene-manipulation), Gene Cloning, DNA biotechnological applications, Parentage proof using DNA typing.

MEN 223 Psychology CU 03
The course will teach concepts of social psychology, and how to use the knowledge acquired to promote health, prevent ill-health and provide comprehensive health care. The student will learn how to use the concept of social psychology to provide community leadership in health care provision. The student will learn about human behaviour in disease. He will learn how to recognize, assess, and investigate abnormal behaviour in the course of general health care provision. Throughout the course the student will learn how to recognize abnormal forms of behaviour responsible for, or arising from general health problems. The following areas will be covered:
Human learning: Classical conditioning, Operant conditioning, Social learning.
Intelligence: Measurement of intelligence; biological influence on IQ; environmental influences on IQ; mental retardation; Piaget's theory of cognitive development.

Memory: Storage and transfer model of memory; theories of forgetting; memory disorders.
Motivation: Determinants of motivation; Maslow's Hierarchy of needs; perceptions; sensation and perception; perception disorders; pain perception and control.
Sexuality and Gender role: Gender and gender identity; sexuality through the life cycle; psychosexual problems and their treatment; sexual orientation; heterosexuality and homosexuality.

Personality: Assessment of personality; Freud's psychoanalytic theory; Eriksson's theory of psychosocial development; Roger's phenomenological theory of personality.
Human development: Infancy, childhood, adolescence; adulthood.
Death and the dying process: Attitudes towards death at different phases in the life cycle; facing one's own death; coping with the death of some one else.
Introduction of psychopathology: Suicide and parasuicide.
Application of clinical health psychology to one specific area of health care (Obstetrics and Gynaecology): Menarche and menstruation; problems related to menstruation; pregnancy, puerperium and parenthood; menopause.

PHM 223 Disease Control and Environmental Health CU 03
Principles of communicable and non-communicable disease control; basic immunology and microbiology; systems of classification of disease; epidemiological triad of disease and the various factors and determinants of disease; describe selected human and zoonotic diseases of public health importance in Uganda, S.T.D.'s HIV/AIDS, TB, Malaria, Diarrhoeal Diseases; and immunisable diseases; arboviruses and viral hemorrhagic fevers. Discuss parasite and insect taxonomy; describe parasites, their vectors and control of parasitic infections.
Explain what constitute environmental health; the relation between environmental health and the health of communities' and individuals, sanitation, food hygiene; community action towards solving environmental problem. Various occupational hazards; management and prevention of occupational hazards.

YEAR III

SEMESTER I

In the third year, students will be divided in groups A and B. During semester one, both groups will do PHA 331 and PAT 341 in the integrated lecture sessions between 8:00 to 9: 00 am. From 9:00 am, group A will be doing Paediatrics while group B is clerking Surgery. The groups will cross-over in the middle of the semester so that by the end of the semester, both groups have completed Paediatrics and Surgery.
In the second semester, the groups will clerk medicine and Obs/Gyne in a cross-over fashion as in the first semester. Both groups will do Pharmacology (PHA 342) during the integrated lectures between 8:00 and 9:00 am.

PCH 311 Introduction to Clinical Methods in Paediatrics and Child Health Practice CU 04

The aim of the course is to equip students with the cognitive knowledge, technical skills and clinical judgement to enable them achieve reasonable competence in the practice of paediatrics history taking and physical examination. It will also enable the students develop a good working relationship with all those involved in the health care delivery especially in respect to paediatrics and child health and appreciate the importance of team work.

To impart knowledge on scientific basis on some aspects of child health and some of the common paediatric problems that would enable a student gain an insight of the cope of Paediatrics and child health in the tropics. To impart knowledge and skills which will enable the student carry out simple laboratory techniques. The course is covered by means of lectures, tutorials and practical demonstrations.

SUR 311 Clinical Methods and Principles of Surgery Practice CU 04

Through a series of clinical instructions, mainly at the bedside, in clinics and in theater, the student will be exposed to the art of History taking, physical examination and the interpretation of physical signs, laboratory and X-ray findings. The student will be instructed in the process of making a management decision while treating patients with surgical disease.

Using core knowledge of the Basic Sciences, a student will be introduced to the common surgical conditions like Trauma, and the diseases of the endocrine glands and the gastrointestinal tract. Surgery of patients with medical conditions like Diabetes mellitus, and or Hypertension as well as Surgery for Cancer will be considered. The importance of proper communication between workers, with patients and their relations will be considered.

PHA 331 Systemic Pharmacology, Blood and Endocrine Pharmacology CU 04

This course reviews the effects of drugs on the major systems. Drugs that affect circulation, respiration, the gastrointestinal tract and the endocrine systems are presented with emphasis on their mechanisms of action, pharmacological effects, clinical uses and adverse effects.

PAT 341 PAT 342 Forensic Medicine & Toxicology, and Medical Ethics CU 04

In forensic Medicine, lectures, seminars and demonstrations will cover: Death and death certification; changes after death (post-mortem changes); sudden, unexpected and natural deaths; asphyxial deaths (hanging & strangulation); Trauma (abrasion, contusion, laceration, incised wounds, stab wounds, gunshot injuries). Injuries sustained in motor vehicle accidents; deaths due to fires (burns); head injuries; deaths due to electrocution. Child abuse, including battered-child syndrome. Cot death; Infanticide. Deaths due to surgical mishaps, including anaesthetic deaths.

In Forensic Toxicology, sessions will cover: General principles of toxicology; Medico-legal aspects of acute alcoholic intoxication; Acute toxicity due to carbon monoxide poisoning; agricultural related poisoning (insecticides & herbicides); drug addiction.

Medical Ethics will cover, but not restricted to: Code of ethics; Duties of Health professions of Uganda; Privileges of a medical practitioner; Medical Consent; Professional Misconduct; Medical negligence; Euthanasia; Ethics related to HIV counseling and testing; Occupational Health and Safety ACT, and Compensation for Injury and Disease Act.

SEMESTER TWO

In the second semester, the students will take Pharmacology (PHA 322) for the whole period and do Medicine (MED 312) and Obstetrics and Gynaecology (OGN 312) each for half the semester in a crossover fashion.

OGN 312 Clinical Methods and Theory in Obstetrics and Gynaecology CU 05

The course will be delivered through lectures, tutorials, case studies, presentation and discussions, ward rounds as well as during outpatient clinics. The course is aimed at providing theoretic knowledge about the subject. It will also introduce students to basic clinical skills of history taking, physical examination, diagnosis, investigations and patient management. The course will comprise of three one to one and half hours lectures per week. Students will have a chance to rotate, clerk patients, present and discuss their cases in antenatal clinics/wards, post natal clinics/wards, labour ward, family planning clinics and gynaecological wards. The student is introduced and exposed to supervised hand on practice in both obstetrics and gynaecology. The course is aimed at providing the student with real life skill in the art and science of the subject. The course will include clerking, monitoring of labour and delivery, assisting on difficult procedures, witnessing surgical procedures, and participation in the management of patients. The student will use a log book to write up and record all the cases managed by him/her. The completed log book will be handed in for correction at the end of the clerkship. This course will be examined by written papers comprising of essay questions, short notes and multiple choice questions and, long and short cases presentation and discussion at the end of the semester. The log book write up will be examined as a progressive assessment.

MED 312 Clinical Methods and Skills in Medicine CU 04

This shall compromise of lectures covering the 'theory' of clinical medicine. Pathogenesis and theory of common medical conditions, their clinical presentation and principles of management and prevention. Students will acquire a general understanding of medical conditions effecting the heart, abdomen, chest, kidneys and nervous system. Other topics will include clinical immunology, hematology, oncology and the endocrine system. The lectures will also cover laboratory clinical investigation techniques. The student shall be introduced to basic clinical skills of history taking and systematic physical examination through a series of formal bedside teachings. The student will acquire skills in the clinical care, and follow-up of patients with common acute and

chronic medical conditions affecting the different body systems. This will be done in the form of tutorials, bedside teachings and discussions on the wards as well as in the outpatient clinics. The students will conduct patient related basic investigations and their interpretations in the side labs, guided by laboratory technicians. Progressive assessment will be done according to the student input and participation in the wards, outpatient clinics and the side labs. The course work will consist of the progressive assessment above and full case ups of at least two patients. The course will be examined by written paper and clinical examination at the end of the semester.

PHA 342 Neuro-psychopharmacology and Toxicology 04

This course deals with drugs that act on the brain. The pharmacology of drugs that modify mood. Motor function and appreciation of pain are introduced to the student. Principles for the treatment of epilepsy and Parkinson's disease are presented. After the student has understood the principles of drug action, the pharmacology of poisonous compounds (toxicology) is introduced. To complete the course, the effects of vitamins and treatment of vitamin deficiencies are presented. Under miscellaneous topics, the therapeutic applications of therapeutic gases, blood transfusion and vaccines are covered.

RECESS TERM

MEN 333 General Clinical Clerkship in Psychiatry CU 04

The course covers general, social, and clinical Psychiatry.

This course aims to teach the student how to recognize, assess, investigate and provide appropriate care; including referral, for common mental health problems. The course also will teach the student how to recognize, assess, investigate and provide care and or appropriately refer the patient with common mental health problems in Uganda.

This course will also teach the student the principles of non-medical approaches to health care provision. In particular, the student will appreciate the role of the family and other social institutions in health care provision.

There will be seminars and ward teachings in practical clinical approaches in the care of specific problems in general practice. This course will teach management approaches to be opted in providing care at primary care level.

RAD 313 Introduction to Radiology CU 03

Radiology imaging is introduced during the pre-clinical period Correlation of cadaveric anatomy to anatomy in the living e.g. Radiological anatomy. Production of the X-ray image; dangers and the wide range of uses of radiation should be appreciated. A discussion of the radio-imaging, the scope of diagnostic and therapeutic radiology including types of machines is done. Reading X-ray and being able to identify changes in the lung field e.g. pneumonia, collapse, fibrosis, cannon ball secondaries; pnuemothorax pleural effusions, acute pulmonary oedema and the various presentations of PTB.

COB 333 Community Health CU 04

History of Pubic Health. National and International organizations involved in public health legislation; notifiable and reportable diseases; international humanitarian agencies involved in disaster response and refugee health; definitions and concepts of national and

international disasters; types and stages of disasters; principles of disaster preparedness and response; causes of disasters; refugee rights and laws; refugee health services; common health problems among refugees; psycho-social coping of refugees; reproductive health and sexual issues among refugees. Health services for special groups: school health services; health services for the handicapped. Population and fertility; population measurements; population size and growth; population structure; population amd environment; population policy and programmes.

YEAR IV

SEMESTER 1
MED 421 Medical Specials CU 03
During this semester the student will do Medical Specials (MED 421) consisting of lectures to cover common clinical problems in "Infectious Diseases" (HIV/AIDS, TB and Malaria –ATM), leprosy, oncology, palliative care, venereology and dermartology. In addition students will rotate in these subspecialties where they will have bedside and outpatient teaching to acquire skills in their management.

SEMESTER TWO

SUR 422 Surgical Specials 16
This course comprises of four sections: Ophthalmology, ENT, Anaesthesia and Orthopaedics.

(i) Ophthalmology (03)

Anatomy and Physiology of the eye; Ocular examination; Refractive error; diseases of the Conjunctiva and Lacrimal system; Disease of the lens; Diseases of the Retina and Chroroid; tropical Ophthalmology; Glaucoma; Ocular Tumours; Orbital Diseases.

(ii) Ear, Nose, Throat (03)

Clinical evaluation of E.N.T patients history taking and examination, and should be able to interpret routine investigations like audiograms and routine X-ray pictures, geared at arriving at a correct working diagnosis. Recognition and management of airway and non-airway emergencies in ENT.

Review the anatomy and physiology of the ear, nose, pharynx, larynx and oesophagus, diagnosis and management of diseases manifesting in the ear, nose, and throat.

(iii) Anaesthesia (02)
Principles of anaesthesis, Resuscitation and intensive care; Induction and preoperative management; Applied Pharmacology; Intraoperative management; Post operative Management; Critical Care.

(iv) Orthopaedics and Traumatology (03)
During this course, the students will learn diseases of bones and joints and related tissues, and effects and management of trauma. The course will be conducted by lectures and bedside clinical tuition and demonstrations of basic problems in Orthopaedic practice. Lecture topics will include congenital affections of bines and joints; inflammation of bones, joints and related tissues resulting from injury or infections; degenerative conditions affecting the locomotor system; bone tunors (neoplasms [1^y and 2^y] and benign).

Students will also learn the effects of injury to the body; metabolic response to injury; fractures and their management; the organisation of an accident service and department; burns and their management. Students will rotate and work in the accident and emergency unit, and practice simple procedure of wound care, toilet and suture and the techniques of bandaging and application of plaster of Paris.

RECESS TERM

PHM 433 Community Health CU 05
Components and objectives and organization of ante-natal, post-natal, family planning. MCH and maternal health clinics. Components of child health services including immunization, and public health reproductive health issues; preparation for and conduct health education sessions in clinics/community. Describe nutritional requirements of different age and occupational groups; describe the distribution of foodstuffs in relation to the food habits of different communities, describe the influence of socio-economic factors on local food distribution patterns. Classify food habits of communities in broad food patterns. Formulate appropriate nutrition menus based on local foodstuffs for different groups and individuals; describe and prepare learning materials on nutrition education; prepare case study reports on nutritional problems of a community; formulate and conduct studies on hazards posed by food handlers; schedule and conduct nutrition education sessions in primary health care programs; show appreciation and understanding of dietary and food habits of different communities. Describe the disease entities associated with malnutrition and examine ways and means of promoting good nutrition and preventing malnutrition.

PHM 443 Health Policy and Management CU 02
Discuss the national health plan and policy, health care reforms especially decentralization and the health sub-district; understand the concepts and pillars and elements of primary health care; review the basic concepts, principles and theories of management; discuss the management of personnel, health information, stores and resources, finance, premises, vehicles, equipment and time; and carry out inter-sectional liaison at different levels; describe the structure of the national and district health systems; discuss the functions of the district health management team; discuss the principles of planning; describe the planning cycle; finance and budgets. Health care financing; Quality Assurance; Organisation and Management of health care services; Health and development issues.

Students will carry out research in Public Health Practice during the fourth year. They will develop a research proposal and carry out research/community diagnosis. This will involve collection of data, analyzing and interpreting data, writing a research report, with conclusions and recommendations.

FIFTH YEAR

During the fifth Year the students will spend two semesters rotating in Psychiatry, Paediatrics, Medicine, Surgery and Obstetrics and Gynaecology. In the first semester there will be two combinations i.e. A (Social, Adolescent and Child Psychiatry-PSY 511) and Paediatrics (PCH 511 and 521) and B (PSY 511 and Medicine (MED 511 and 521) to be done in a cross-over fashion. Similarly the second semester will have two combinations i.e. A (Clinical Psychiatry-PSY 522 and SUR 522) and B (PSY 522 and Obstetrics and Gynaecology-OGN 511 and 521) to be done in a cross-over fashion.

SEMESTER ONE

PCH 211 Advanced Clinical Methods in Paediatrics, and Paediatrics and Child Health Practice CU 05

To impart knowledge and skills that would enable the student upon completion of the course to manage major childhood diseases, in an effective and integrated manner that would help him/her provide quality paediatric and child health care.
To consolidate the students' knowledge and skills acquired during the third year – that could help them provide effective and integrated in-patient and out-patient care.

The aim of the course is to expand and consolidate the student's knowledge on common paediatric problems and different aspects of child health. The students will learn in greater detail the pathogenesis, manifestations, diagnosis and management of the common paediatric problems including important global issues in paediatrics and child health. To gain more experience in laboratory techniques and the use of other diagnosis facilities. The course will be covered by means of lectures, tutorials and practical demonstrations.

SUR 531 Essential Surgical Skills CU 05

The student will be introduced to advanced levels of patient clerkship, Laboratory result interpretation and specializations. More use of the basic sciences and surgical knowledge acquired earlier through bedside patient management will be encouraged.

SEMESTER TWO

OGN 522 Advanced Clinical Skills and Thery in Obstetrics and Gynaecology CU 05

The lectures are aimed at providing more advanced comprehensive theoretical knowledge in Obstetrics and Gynaecology and its related areas

The course comprises of lectures – three per week and each lasting for one hour. The course is examinable at the end of the semester by written paper comprising of multiple choices, short answer questions and essays.

The course is aimed at revision and consolidation of student basic clinical skills and development of right and positive attitude in the practice of obstetrics and gynaecology. The students will be offered bedside teaching, tutorials, case studies, demonstrations and discussion. Students will participate through clerking patient's presentations and leading discussions.

During this course students are given an opportunity to identify their areas of interest in different settings i.e. clinics, wards emergency units, family planning clinics etc for presentation discussions, case studies and demonstrations.
The course is examinable at the end of the semester by written paper comprising of multiple choices, short answer questions, essays, short and long case presentations and discussions.

The course is examinable through long and short cases presentation, and discussions at the end of the semester.

This course will use and keep the provided log-book to record all cases managed, assisted by the candidate. The completed log-book will be examined at the end of the semester.

MED 532 Advanced Clinical Methods and Skills in Medicine CU 05
This shall comprise of lectures covering the 'theory' of clinical medicine. Pathogenesis and theory of common medical conditions their clinical presentation and principles of therapy and prevention. Students will acquire a general understanding of medical conditions affecting the heart, abdomen, chest, kidneys and nervous system. Other topics will include clinical immunology, hematology oncology and the endocrine system. The lectures will also cover laboratory clinical investigation techniques. The course will be examined by a written paper at the end of the semester. This shall comprise of MCQ's essays and short notes.

The students shall be introduced to more advanced clinical skills of history taking shall and systematic physical examination through a series of formal bedside teachings. The student will acquire further skills in the clinical care, and follow-up of patients with common acute and chronic medical conditions affecting the different body systems. This will be done in the form of tutorials, bedside teachings and discussions on the wards as well as outpatient clinics. The students will conduct patient related basic investigations and their interpretations in the side labs, guided by laboratory technicians. Progressive assessment above and full case write ups (admission, follow-up to discharge) of at least two patients. At the end of the course a clinical examination will be done.

GULU UNIVERSITY, FACULTY OF MEDICINE

CURRICULUM MAP

YEAR	SEMESTER I	SEMESTER II	RECESS TERM
I	ANATOMY (Hist. & Embryo. U&L Limbs) PHYSIOLOGY I Comm. & Computer Skills	ANATOMY (Thorax & Abd., Pelvis &Perineum) PHYSIOLOGY II BIOCHEMISTRY I	MENTAL HEALTH I PUBLIC HEALTH I (Biostat & Epid. ; Introduction to Research Methods
II	ANATOMY (Head & Neck) PHYSIOLOGY III BIOCHEM II PHARMACOLOGY I MICROBIOLOGY I PATHOLOGY I	ANATOMY IV PHYSIOLOGY IV BIOCHEMISTRY III PHARMACOLOGY II MICROBIOLOGY II PATHOLOGY II	PATHOLOGY III MICROBIOLOGY III MENTAL HEALTH II (Psych) PUBLIC HEALTH (Disease Control & Environmental Health)
III	Forensic Medicine and Medical Ethics; PHARMACOLOGY III	PHARMACOLOGY IV	RADIOLOGY MENTAL HEALTH III PUBLIC HEALT (Community Health)
	JUNIOR CLERKSHIP		
	PAED. I / SURGERY I	MEDICINE I / OB/GYN I	

IV	MEDICAL SPECIALS		SURGICAL SPECIALS		PUBLIC HEALTH III (Community Diagnosis & Primary Health Care. Health Policy and Management)
	TB & LEPROSY	INFECTIOUS DISEASES ONCOLOGY	OPHTHALMOLOGY ANAESTHESIA	ORTHOPAEDICS ENT	
V	SENIOR CLERKSHIP				
	PAEDIATRICS II	SURGERY II	MEDICINE II	OB/GYN II	

GULU UNIVERSITY
Faculty of Medicine
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Departmentalization of the Faculty of Medicine

The MB;ChB programme in Gulu University will be integrated and learning activities will, as much as possible, be based in the community. Foe coordination and administrative purposes, the programme will be divided in courses, which are organized under learning areas that shall be designated as departments. There will be 13 departments as follows:

ANATOMY	MENTAL HEALTH
PHYSIOLOGY	PUBLIC HEALTH
BIOCHEMISTRY	REPRODUCTIVE HEALTH
PHARMACOLOGY	PAEDIATRICS AND CHILD HEALTH
MICROBIOLOGY AND IMMUNOLOGY	MEDICINE
PATHOLOGY	SURGERY
RADIOLOGY	

The staff requirements will be based on the workload based on the curriculum and teaching activities as defined in the curriculum. The workload in the faculty of medicine has been computed as follows:

Item No.	**Activity**	**Contact Hours/Year**
1.	*Teaching	1440
2.	Research (20 %)	288
3.	Clinical/Community work	1440
TOTAL		**3,168**

*Teaching in the faculty of medicine includes lectures, practicals, bed side teaching and demonstrations, field supervisions and tutorial sessions.

Establishment is given by = $\frac{\text{Department contact hours per annum}}{\text{Mandatory workload per person (300)}}$

= 11 teaching staff per department

Each department in the faculty of medicine will have the following categories and number of academic staff.

Category	**Number**
Professor	1
Associate Professor	1
Senior Lecturer	2
Lecturer	4
Chief Technician	1

Teaching Assistant	2
*Teaching support staff	3

These categories of staff will be backed by various cadres of *teaching support staff (technical staff, and nurses, midwives and social workers in the departments of Reproductive Health, Paediatrics and Child Health and Mental Health, respectively).

The Faculty

These departments will be organized under the Dean and two Associate Deans (Dean for Research and Dean for Education) as shown in the organogram.