

## **COLLEGES AND PROGRAMS OF STUDY**

### **THE COLLEGE OF AGRICULTURE & INTEGRATED RURAL DEVELOPMENT**

The College of Agriculture and Integrated Rural Development evolved from Cuttington's former Rural Development Institute, which emphasized the training of students in agricultural techniques dealing with soil science, plant and animal science, agricultural engineering and farm management. Presently the college offers a four-year program of study leading to the awarding of the Bachelor of Science (B.Sc.) degree in Agriculture and Integrated Rural Development.

All students of this college are required to complete their general Education Requirements before embarking upon their majors (see General Education Requirements).

#### **PROGRAM OF STUDY IN AGRICULTURE**

**Bachelor of Science in Agriculture and minor in Rural Development**

**Total credit 127**

#### **DESCRIPTION OF COURSES**

### **AGRICULTURE**

#### ***Agric. 101-Introduction to Agriculture (3 Credit Hours)***

This course is first in Agriculture Sequential series offered at the College of Agriculture and Rural Development. It is intended to provide students majoring or intend to major in Agriculture and Rural Development, with a comprehensive perspective on agricultural methods and practices in most developing countries especially West Africa. Emphasis on this course will also include the role of agriculture in economic development.

#### ***Agric. 102-Introduction to Forestry (3 Credit Hours)***

Introduction to Forestry 102 is intended for Agriculture and Rural Development majors. It is designed to give an overview of Forestry, meaning, scope of Forestry and management of forest resources. This course emphasizes practical work. Applications of forestry principles studies in lecture classes.

*Prerequisite – Agric. 101*

#### ***Agric. 202-Agriculture Extension (3 Credit Hours)***

The course is intended to teach students on the organization as well as on the exchanging of information agriculture and the transfer of technology to farmers. Emphasis is on the overview of extension in agricultural and rural development, improving extension programs and process, improving extension management, as well as on current trend and development.

#### ***Agric. 203-Agriculture Business Management (3 Credit Hours)***

Increasingly, the range and complexity of management decision requires that agribusiness adopt more formal techniques and methods in farming. Hence, this course is intended to prepare practicing farmers and managers for the challenges and tasks of managing a farm enterprise as a business.

*Prerequisite – Econ. 201*

This is an introductory course to farm management. The course introduces the rational, concepts and methods of business management as used in agriculture enterprises. The main emphasis of the course is the application of production, management, and financial techniques, theories and principles to agriculture enterprise productions. Other aspects are production and financial planning, budgeting, labor recruitment and management, and the utilization of available natural resources, environmental factors and information in farm management. A choice has been made to cover a wide range of topics in consideration details.

***Bio. 209-General Botany (3 Credit Hours)***

This course provides an introduction and background history of Botany, the plant cell and its structure, function of organelles, cell division (mitosis), structure and functions of roots, stems and leaves, photosynthesis, respiration; plants and water relations, plants and minerals, vegetative propagation, flowers, fruits, seeds and seed dispersal, seed germination and classification of plants.

*Prerequisite – B. Chem. 101*

***Agric. Engr. 301-Agriculture Engineering (3 Credit Hours)***

Agriculture engineering 301 is intended for Agriculture and Rural Development majors. It is designed to give an overview of Agricultural Engineering to the students. The course also introduces students to the various branches of agriculture engineering and relationship between agriculture as an applied science and the natural sciences.

*Prerequisite – Math 102 and Chem. 102.*

***Agric. 304-Agricultural Statistics & Field Experimentation (3 Credit Hours)***

The course is intended to teach students of agriculture on the role of statistics in agriculture research. Emphasis will be placed on frequency distribution and graphic methods, central tendency, sampling in experimental plots, principles of experimental design, single-factor experiment, two-factor experiments, comparisons among treatment means (LSD and DMRT), Regression and Correlation Analysis, Chi-Square Test, and how to deal with problem data.

***Agric. 305-Introduction to Plant Pathology and Disease Management (3 Credit Hours)***

Introduction to concept of disease in plant: parasitism and pathogen city. Agents of plant diseases; biotic and non biotic factors. Virus as a pathogenic agent. Diagnostic procedures: Koch's postulate. Disease development in plants. Disease cycle symptoms and signs of major diseases in the West African sub-region with emphasis on Liberia. Disease epidemiology; principles of disease management; yield assessment methods. Methods of control including regulatory, cultural, chemical host resistant, etc. Labs will emphasize the

collection of samples of major diseases of principal crops and the illustration of some of the management techniques. Three 1- hour lectures and one 3-hour lab per week.

***Agric 306-Fish Farming (3 Credit Hours)***

An introduction to Fish Farming is designed as a study of Fishery management and production for our communities' consumption, thereby providing self-employment for our local farmers. This course is merely intended to provide students several approaches to agricultural tools necessary for the groundwork of holistic agriculture.

***Agric. 308-Tree/Cash Crops (3 Credit Hours)***

This course will consider the principles and practices of cash/tree crop production such as Beverages (Cocoa, Coffee), Fruits (Citrus), oil-seed crops (oil Palms), and Latex Crops (rubber).

***Agric. 311-Crop Production (3 Credit Hours)***

The principles and practices of crop production will be taught and demonstrated to students. It enables the classification of crop plants, cropping systems, crop establishment practices, and weeds and weed control. Practice of crop production will consider cereal crops, roots and tubers, grain legumes and vegetable crops.

*Prerequisite: Bota.209; Agric. 101 & 102*

***Agric. 312-Rice Production (3 Credit Hours)***

The importance of rice world-wide; morphology of the rice plant; growth and development; seed production and handling; paddy and upland rice varieties; methods of planting rice; water management practices and irrigation requirements for rice; fertilization; weed and pest control; common diseases of rice; harvesting of rice.

*Prerequisites: Bota. 209; Agric. 101 & 102.*

***Agric. 313-Environmental Science (3 Credit Hours)***

Introduction to Environmental Science 313 is intended for Agriculture and Rural Development majors. It is designed to give an overview of Environmental issues, environment and man, policy and law. These courses will also emphasis waste management, pollution and Environmental Impact Assessment (EIA).

*Prerequisite – Bio. 209.*

***Agric. 314-Rubber Culture (3 Credit Hours)***

Botany of rubber; Propagation; Transplanting; Fertilization; Weed Control; Tapping; Rubber Processing (filtration, coagulation, removal of excessive moisture, drying, smoking or curing, grading); Yield; Diseases and Control.

*Prerequisites: Agric. 101 & 102; Bota. 202*

***Agric. 40-Agriculture Marketing (3 Credit Hours)***

This course is intended to introduce students to several approaches to agriculture marketing as each approach provides a unique prospective to marketing. The course is especially designed to provide student the skill to understand and evaluate an Agricultural Marketing system.

*Prerequisite – Agric. 203*

***Agric. 402-Record, Accounts & Business Management (3 Credit Hours)***

In agri-business, farmers and farm managers are increasingly required and expected to perform a wide range and complex duties if they are to remain competitive in business. Today practicing farmers and managers require keeping records and adopting modern techniques and methods in business practices. Hence, this aspect of course work is just intended to prepare the manager for these challenge tasks. This course will be built on materials covered on ECON 201 and AGRIC 203. Emphasis of the course is on Farm Record keeping and Financial Management. Other aspects of the course will include but not be limited to investment analysis, credits and assets management.

*Prerequisite – Agric. 203.*

***Agric. 403-Soil Science and Water Management (3 Credit Hours)***

This course will have an introduction on soil as a three-phase system. It will also include mineral matter of soil, organic fraction of soil, the physical properties of soils, soil water, Cation exchange, soil genesis.

*Prerequisite – Biol.101 & 102; Chem. 101 & 102.*

***Agric. 404-Soil Fertility & Fertilizers (3 Credit Hours)***

Essential nutrients for plant growth, mechanisms of nutrient uptake by plants; principles of modern soil fertility theory; technology of manufacture and chemical properties of fertilizers; green manure (organic fertilizer); fertilizer management; effects of fertilizer and soils on crop quality; liming; fertilizer response curves.

*Prerequisite: Agric 403.*

***Agric. 406-Horticulture (3 Credit Hours)***

The course is intended to expose students to increasing interest in their areas of specialty, thus agriculture, for the purpose of an adequate consumption of a household. The course deals with the study of managing your own food production and largely that of your community. This practice will further be demonstrated by field study to be carried out by students as a practical example. A group work is also emphasized for which a comprehensive written assignment report will be made.

## **RURAL DEVELOPMENT**

***R.Dev. 10-Introduction to Rural Development (3 Credit Hours)***

This course will introduce students to the basic fundamental principles, concepts and factors that hinder Rural Development and also the effects, issues, and problems of cultural practices in rural development theory of rural development system of approach to the transformation of rural society/community. This includes evaluation through case studies of various rural development strategies and policies.

***R. Dev. 102 Rural Sociology (3 Credit Hours)***

The course helps students to understand and identify rural institutions, their functional aspects in rural society, so as to be used for rural development purpose. It also helps identify resources for rural development in the rural areas. This course helps development students understand the participatory roles of animators and other stockholders in rural development. The course focuses on rural institutions and rural community development.  
*Prerequisite – R.Dev. 101*

***R.Dev.201- Integrated Rural Development Planning and Implementation (3 Credit Hours)***

The course focuses on factors that influence rural development and problems rural development seeks to address in the rural areas. It also introduces students to the various approaches and strategies as well as planning methodology to rural development. The main focuses of the course concentrate on planning procedure, stages of planning and plan implementation

*Pre-requisite – R. Dev. 102*

***R. Dev. 300-Urban Linkages (3 Credit Hours)***

This course is designed to give students an insight of the interrelationship and interdependence that exist between rural and urban areas. The course will focus on the nature of these linkages, the contributing factors, their effects and a way forward.

***R. Dev. 301-Social Economic Growth and Development (3 Credit Hours)***

The course should help students gain a better understanding of a number of critical questions relating to the economics of the development world. The course also attempts to understand why some countries develop rapidly while others seek not to develop at all. It also seeks to discuss issues relating to countries that are still rural and skill poor.

*Prerequisite – R. Dev. 201*

***R. Dev. 302-Development Administration and Management (3 Credit Hours)***

The course drives students' attention to the general management of the state affairs, such that better levels of administrative and bureaucratic efficiencies could be attained. As a concept, the course focuses on the need for life style of the population to change positively, the economy to grow as well as the public sector.

*Pre-requisite – R. Dev. 300*

***R. Dev. 311-General Geography (3 Credit Hours)***

The main focus of this course is to relate the physical environment of any group of population to their development initiatives. In the process, such features as the topology (the lowness and highness of the terrain), including the soil type, rocks, hills, valleys, water, the air, etc. are taught. Emphasis is also placed on the population, their spatial distribution and their implications on development.

*Prerequisite – R. Dev. 300*

***R. Dev. 414-Settlement Studies (3 Credit Hours)***

The main aim of this course is to expose the students of Rural Development to the rudiments of settlement and how it came about. This is necessitated by the fact that

development is about people and people in turn, are studied in accordance with their localities settlement. As such, it is prudent to offer information that is relevant to the subject matter thereby enabling the students to get the gist of the way that it contributes to study of development. The course therefore has, as an objective, the teaching of the origin, courses, impacts, and theories of settlements. It also hopes to teach how people conduct themselves in their places of residence as well as the policies and strategies that guide settlement procedures. The following outline attempts to provide a broader content of the course.

## **THE COLLEGE OF EDUCATION**

The College of Education prepares individuals for professional service in the Liberian educational system; it is counseling, curriculum development, research, school librarianship, teacher education, educational planning and other professional roles. The college seeks to develop knowledge and skills around important issues and problems in Liberian and African educational development.

These objectives are pursued by providing opportunities for pre-service study in several teaching fields and in-services training in workshops, seminars and symposia.

The college offers the following degrees; 1) the Bachelor of Science (B.Sc.) in Elementary Education with preparation for teaching all subjects; 2) the Bachelor of Science in Secondary Education with preparation for a specific teaching field in Social Science, Language-Literature or Science-Mathematics; and 3) the Bachelor of Science (B.Sc.) in Educational Administration for the preparation of school principals, education officers, and other administrative positions

Students wishing to major in Education are advised to contemplate on completing the General Education requirements.

## **DESCRIPTION OF COURSES**

### ***Ed. 109--Introduction to Library Science (2 Credit Hours)***

This is a basic course. It covers the historical background, organization, types of libraries, the use of libraries, and the role of the library as an institution that preserves culture.

### ***Ed. 111--Physical Education: Health & Physical Education (1 Credit Hour)***

One lecture period and one practical period per week. An introduction to personal hygiene and mental health; physical training and development.

### ***Ed. 201--Philosophy and Foundations of Educations (3 Credit Hours)***

History of education in Liberia and other selected countries. A brief history of early education since 400 B.C. is given and an overview of philosophers and philosophies that have influenced education from 400 B.C. to the present are treated.

### ***Ed. 211--Introduction to Teaching (3 Credit Hours)***

A prerequisite for admission to the professional education sequence, the course is designed to survey the implications of a career in education. Focus is on the role of the professional educator in national development efforts in Liberia and other developing countries. The “philosophy of education of Liberia,” teaching strategies, and contemporary pedagogical methods are included. A problem approach is used and input from in-service educators at all levels is sought.

*Prerequisite: Sophomore standing or 3<sup>rd</sup> semester at Cuttington.*

***Ed. 221--Child Development (3 Credit Hours)***

The social, mental, and emotional development of the young child with implications for learning are explored.

***Ed. 251--Psychology of Learning and Instruction (3 Credit Hours)***

Knowledge of human behavior, learning theories and general psychology relevant to the teaching-learning process are considered. Included are socio-cultural factors in the psychological development with reference to African and indigenous education.

*Prerequisite: Ed. 211 and Psych. 101.*

***Ed. 254--Instructional Methods (3 Credit Hours)***

Intended to give all education majors a repertoire of teaching skills, styles, strategies, methods, and techniques in various subject areas and for a cross section of students

*Prerequisite: Ed. 211.*

***Ed. 260--Teaching Science in the Primary School (3 Credit Hours)***

This course deals with the objective of science in the primary school, the relationship of science to curriculum planning and methods of teaching science. It presents new approaches to teaching primary science as well as science content, and focuses on science units based on the local environment with curriculum project approaches emphasized by the Liberian education curriculum.

*Prerequisite: Ed. 211.*

***Ed. 262--Teaching Social Studies in the Primary School (3 Credit Hours)***

Methods of teaching Social Studies survey concepts, principles and procedures in primary social studies are presented. Geographical, historical, environmental, and group interaction processes are emphasized. Goals from the ASSP (African Social Studies Program) are presented.

*Prerequisite: Ed. 211*

***Ed. 333--Teaching Language Arts in the Primary School (3 Credit Hours)***

Focuses on processes of language development in children, including speech, handwriting, spelling, reading and language usage, methods of teaching language arts which include the linguistic approaches to grammar and diagnostic techniques. Ways to encourage expression and foster imagination for development of language skills are emphasized.

*Prerequisite: Ed. 211.*

***Ed. 334--Teaching Mathematics in the Primary School (3 Credit Hours)***

Provides methods of teaching mathematics concepts including sets, bases, numeration systems, number operations, informal geometry, problem solving and the metric system for primary through middle grades.

*Prerequisite: Ed. 211.*

***Ed. 335--Teaching of Science (3 Credit Hours)***

The study of objectives and methods of teaching at the secondary level with stress on development of appropriate scientific attitudes, procedures for carrying on scientific activities in the classroom, and the use of equipment and teaching aides.

*Prerequisite: Ed. 211.*

***Ed. 336--Teaching Music in the Primary School (3 Credit Hours)***

A study of curricular plans and materials needed for the sequential development of music learning in children. Includes skills for teaching music classes, chorus, and music appreciation.

*Prerequisite: Ed. 211*

***Ed. 337--Teaching Art in the Primary School (3 Credit Hours)***

Problems and materials for art teaching are treated, and media appropriate to art experiences of children are introduced. Methods of stimulating creative art expression, development of activities and visual materials for teaching art to children are also areas of attention.

*Prerequisite: Ed. 211.*

***Ed. 338--The Teaching of Mathematics (3 Credit Hours)***

A study of the basic ideas and concepts of secondary school mathematics and the technique for their organization and presentation in the classroom are stressed.

*Prerequisite: Ed. 211.*

***Ed. 339--Teaching of Social Science (3 Credit Hours)***

This is a methods course which considers the integration of history, geography and civics and the development of the student's appropriate emotional and intellectual reactions to social problems and issues. Emphasis is placed on selecting, organizing, and presenting materials in history, civics, geography, and other social sciences taught at the secondary level.

*Prerequisite: Ed. 211.*

***Ed. 342--Children's Literature (3 Credit Hours)***

A study of children's literature from early oral and written sources to the present day. Emphasis upon the creative use of prose and poetry to meet the needs and interests of children at various levels of development.

*Prerequisite: Ed. 211.*

***Ed. 353--Teaching of English (3 Credit Hours)***

Methods of selecting, organizing, and presenting materials in composition and literature in the secondary schools are the main areas of focus.



*Prerequisite: Ed. 211.*

***Ed. 372--Teaching of Reading (3 Credit Hours)***

The course stresses the selection of reading content for the primary school and ways of teaching reading. There will be emphasis on new trends in reading instruction, the diagnosis and improvement of reading skills in the primary school as well as remedial instruction.

*Prerequisite: Ed. 211.*

***Ed. 374--Tests and Measurements (3 Credit Hours)***

An overview of the field of tests and measurements with emphasis on test construction, scoring, analysis of results and their interpretation and report.

*Prerequisite: Ed. 211.*

***Ed. 413--School Administration and Guidance (3 Credit Hours)***

Organization of educational administration in Liberia and other selected countries is dealt with. The role of the administrator, and administrative processes in elementary and secondary schools are emphasized. Organizational function, and relationships of guidance in secondary education plus the study of guidance problems in Liberia are included.

*Prerequisite: Senior Education Majors only.*

***Ed. 441--Student Teaching/Internship in the Primary School (9 Credit Hours)***

Prospective primary teachers participate directly in work of classroom teaching in local schools. Methods and teaching-learning principles are applied with guidance from classroom teachers and Cutting ton staff. Seminars are held to recap and share experiences in the schools. Self-inquiry of the student teacher's behavior is stressed.

Primary student teachers may do their student teaching/internship either on or off-campus.

*Prerequisite: Senior Education Majors only.*

***Ed. 461--Student Teaching/Internship in the Secondary School (9 Credit Hours)***

Prospective secondary teachers participate directly in work of classroom teaching in local schools. Methods and teaching-learning principles are applied with guidance from classroom teachers and Cutting ton staff. Seminars are held to recap and share experiences in the schools. Self-inquiry of the student teacher's behavior is stressed.

Secondary student teachers may do their student teaching/internship either on or off-campus.

*Prerequisite: Senior Education Majors only.*

***Ed. 490--Education Seminar/School & Society (2 Credit Hours)***

In this seminar, student will analyze current issues relevant to African and Third-World countries, especially those which deal with economic development, social demand, and manpower needs as related to educational planning. The impact of such issues on schools and professional educators and their role in social, cultural, and political planning is stressed.

*Prerequisite: Senior Education Majors only.*

***Ed. 492--Senior Research Paper (3 Credit Hours)***

Conducted as an independent research on existing problems in Liberian or African education. Preferably original research is required where a student gathers data on a problem conceptualized by his or her. Research methods and processes are undertaken in consultation with the instructor.

*Prerequisite: Senior Education Majors only.*

**THE COLLEGE OF HUMANITIES & SOCIAL SCIENCES**

The purpose of the College of Humanities and Social Sciences is to foster both the Arts and Social Sciences. The college comprises the following

Departments: English, French, History, Music, Liberian Languages, Mass Communication, Public Administration, Accounting, Economics, Sociology and Management.

At present, the latter five of these departments are offering studies leading to the awarding of either the Bachelor of Arts (B.A.) degree or the Bachelor of Science (B.Sc.) degree, with plans afoot to reactivate the degree programs in English and French, as well as to offer certificate and diploma and degree courses in Mass Communication.

Growing out of a strong Liberal Arts emphasis since 1949, the Humanities program helps in giving Cuttington University its status and reputation as an accredited four-year degree granting university in Liberia. Therefore, in addition to the General Education

Requirements students majoring in specified fields in this college must earn six (6) hours in Art/Music and/ or Kpelle (see General Education Requirements).

**DEPARTMENT OF SOCIOLOGY**

The Department of Sociology offers programs of study leading to the awarding of the Bachelor of Arts (B.A.) in Sociology. Sociology comprises the study of society in its entirety- from the individual to large organizations. Major courses in Sociology emphasize the theory as well as the applied components of the discipline. Students are accepted to use the sociological theory and methods to analyze and solve personal, social, structural and societal problems and issues of today.

Students graduating with a B.A. in Sociology will be capable of applying their knowledge in a wide range of areas such as business, health programs, criminal justices system, social services as well as government. For this reason provision is made for learning basic concepts and methodological techniques, achieving theoretical insights, reviewing research evidence and gaining experience in the field.

**COURSE DESCRIPTIONS**

***Soc 201 – Introduction to Sociology (3 Credit Hours)***

Introduction to Sociology as a scientific discipline subject matter includes sociological concepts, Sociological processes, and social structure, social organization and social institutions, including family, education, politics, religion and economy.

***Soc. 203 Cultural Anthropology (3 Credit Hours)***

The theories and elements of culture are identified and applied to a variety of human societies (including the Liberian society). Emphasizes pre-modern society.

***Soc. 205 Social Problems (3 Credit Hours)***

A survey of social subjects including family, city, public health, alcoholism, drug dependency, social and gender inequality, work, crime and violence.

***Soc. 206 Population and Society (3 Credit Hours)***

Growth and change in the composition and distribution of population, causes and consequences of the “population explosion” and other population variables (fertility, mortality, and migration) and social, economic, political, and ecological factors.

***Soc. 301 Marriage and the Family (3 Credit Hours)***

The study of the major theoretical models about families. Analysis of the family institution, its structure and function, and the dynamics of social change in family interaction and organization. The process of marriage examined includes dating, courtship, mate selection, engagement, and marriage.

***Soc. 303 Social Stratification (3 Credit Hours)***

The study of equality and inequality in society is emphasized in this course, especially Lloyd Warner’s three major classes such as the upper, middle and lower class.

***Soc. 304 Urban Sociology (3 Credit Hours)***

The history and development of cities, their relation to surrounding and rural areas, and the role of cities in the national economy and society. Attention will be given recent and recent changes and accompanying problems.

***Soc. 305 Gender and Society (3 Credit Hours)***

Gender and sexuality in society and cross-culture, with consideration to the role of gender in structuring identity male/female. interaction, and constraints on expanding opportunities.

***Soc. 306 Crime and Delinquency (3 Credit Hours)***

Theories of deviance as they relate to the law and methods of treatment. Emphasis on causes, types, and corrective measures in criminology

***Soc Sci. 308/301 Introduction to Social Research (3 Credit Hours)***

Basic techniques in Social Research with emphasis on the collection, analysis and interpretation of quantitative data.

***Soc. 312 Sociology of Rural Areas (3 Credit Hours)***

The structure and function of rural societies, institutional mechanism of rural societies, role behavior and rural personality, growth; emphasis will be on African, particularly Liberian rural societies, including their social religious, economic and legal functions and working.

***Soc. 401 Introduction to Community Development (3 Credit Hours)***

This course analyses and utilizes the directive and non-directive approaches to community development. Emphasis is placed on the apathetic or disorganized communities, while various community organizations become prime target for study.

***Soc. 403 Women and Social Change (3 Credit Hours)***

An analysis of the implication of social change for the status of women, and an evaluation of the woman's movement and other institutions as a force for social change. Emphasis will be on the Liberian Society.

***Soc.405 Classical Sociology Theory (3 Credit Hours)***

Major contributions to social theory during the 19<sup>th</sup> and early 20<sup>th</sup> centuries. Theorists include: Comte, Max Weber, Pareto, Durkheim, and others. Major emphasis on the intellectual traditions, which gave rise to sociology as a separate discipline.

***Soc. 406 Behavior in Organization (3 Credit Hours)***

Development and role of complex organization in contemporary society focusing on various explanations of organizational structure, process, and change.

***Soc. 408 Environmental Justice (3 Credit Hours)***

A study of the emergence and development of Environmental Justice. An understanding of the interaction between the human environment and inequality among different human groups as defined by race, class, and gender will be addressed.

Topics include environmental racism; the environmental justice movement; environmental attitudes, theories, and health; and race, class, and gender disparities.

***Soc. 410 Practical Research (3 Credit Hours)***

Each student is required to select a research problem and formulate a research topic with the approval of the instructor. The completed research work is presented to the instructor, and other students from the department may be invited (Senior standing.)3 Cr. Hrs.

***Soc. 412 Topics in Sociology (3 Credit Hours)***

Specially selected topics of current or continuing social significance from sociological perspective. Subjects to be announced when course is scheduled. Seminar, with regular class meetings. (Senior standing)

## **ACCOUNTING DEPARTMENT**

The degree program leading to the B.Sc. in Accounting is designed to develop in students an interdisciplinary understanding of the core functional areas of Business Administration,

Economics and other tool areas, as well as working knowledge in auditing, financial and management accounting and costing.

## **DESCRIPTION OF COURSES**

### ***Acct. 201 – Principles of Accounting I (3 Credit Hours)***

An introductory study of the basic accounting concepts, principles and procedures. It is mainly designed as a first accounting course at college level with special emphasis on the double entry principles, accumulation of data and the utilization of such data effectively in preparation of balance sheets and income statements.

*Prerequisite: Sophomore Standing*

### ***Acct. 201- Principles of Accounting II (3 Credit Hours)***

This course is a continuation of Business 201, some subject areas include: Income and Manufacturing Accounting, Receipts and Payments; Income and Expenditure, Preparation of Accounts from Incomplete Records, etc.

### ***Acct. 301 – Cost Accounting I (3 Credit Hours)***

This course is designed to give students a thorough knowledge of the fundamentals of cost accounting and lead them into a wider field of management accounting.

*Prerequisite: Acct. 201 and Acct. 212.*

### ***Acct. 302 – Cost Accounting II (3 Credit Hours)***

This course is a continuation of Accounting 301 and is specially designed for Business Graduates majoring in Accounting.

*Prerequisite: Acct 301.*

### ***Acct. 311- Intermediate Accounting I (3 Credit Hours)***

This course which is a continuation of Acct. 202 is designed to meet the needs of students who will make accountancy a career as well as students who will use accounting as a tool in other fields of specialization or in their personal affairs. Efforts are made to relate the theoretical concepts to local conditions.

### ***Acct. 312- Intermediate Accounting II (3 Credit Hours)***

This course which is a continuation of Acct. 311. Subject areas include: Investment Accounts, Bill of Exchange, Farm Accounts, etc.

*Prerequisite: Acct. 311.*

### ***Acct. 406 – Auditing I (3 Credit Hours)***

This course introduces students to thoroughly up-to-date, modern audit concepts and techniques in both the private and public sectors. It is hoped that it will enable them to obtain a sound working knowledge of the principles and practices of auditing for examination and practical purposes.

**Acct. 407-Auditing II (3 Credit Hours)**

This is a continuation of Acct. 406 and includes such topics as verification of assets – both fixed investments and current assets, current liabilities and related costs and expenses, long term liabilities e.g., Mortgage loans, owners' equity and audit reports.

*Prerequisite: Acct. 321*

**Acct. 400 – Advance Accounting (3 Credit Hours)**

The objective of the course in Advanced Accounting are to enable students to apply accounting standards and techniques to advanced financial accounting situations, prepare the financial statements of specialized companies. Topics to be covered include debt and share issues, debt redemption, providing for dividends and taxation, preparation of corporate financial statements and supporting notes, company liquidation. It also deals with cash flow statements and selected current topics in corporate reporting.

**Acct. 401 – Tax Accounting (3 Credit Hours)**

This course will contrast the differences between tax accounting and business accounting in the areas of cash, accrual and installment reporting. It will also cover accounting periods, accounting methods, permissible changes and required adjustments in accounting methods, and inventory valuation.

*Prerequisite: Senior Standing*

**Acct. 402 – Managerial Accounting (3 Credit Hours)**

The major objective of the course is to develop among the students a basic understanding of the techniques commonly used in managerial decisions based on financial and cost data.

*Prerequisite: Senior Standing.*

**Acct. 403 – Financial Management (3 Credit Hours)**

The major aim at giving groundwork on the financial management function is a business enterprise. The coverage will include financial analysis, forecasting, planning and valuation, and cost of capital.

*Prerequisite: Senior Standing*

**COURSE DESCRIPTIONS IN ECONOMICS****Econ. 201 – Principles of Economics I (3 Credit Hours)**

The first course in the two-part introduction to Economics. Students are acquainted with the basic concepts of economic theory, including supply and demand, market equilibrium, elasticity, theory of the firm, and various market structures.

**Econ. 202 Principles of Economics II (3 Credit Hours)**

The second course in the introductory series in Economics. Topics include: Studies of national income accounting, income determination, money and banking and trade theory. Economics 201 and Economics 202 are designed to provide the student with preparatory to upper level courses.

*Prerequisite: Sophomore Standing.*

***Econ. 493 – Econometrics (3 Credit Hours)***

The essential role of econometrics is the estimation and testing of economic models. For sample equation models, estimating techniques like the ordinary least-squares or generalized least-squares are used. Simultaneous equation systems use techniques like two stage least-squares, limited information, etc. the course will cover only the ordinary least-squares estimating procedures and some of the problems of estimation.

*Prerequisite: Soc. Sci. 311 and Econ. 314.*

***Econ. 331- Intermediate Macroeconomics Theory (3 Credit Hours)***

A detailed study of the economy's aggregate activities, including measurement of gross national product, income determination, fiscal policy, investment, employment and prospects for growth.

*Prerequisites: econ. 201 – 202, Co-requisite: Math. 211*

***Econ. 332- Intermediate Macroeconomics Theory (3 Credit Hours)***

A look at the individual components of the economy – parts of the whole. Topics included are: supply and demand, the market and its divisions, theory of the firm, theory of consumer equilibrium and welfare Economics.

*Prerequisites: econ. 201 – 202, Co-requisite: Math. 211-212*

***Econ. 342 – The Liberian Economy (3 Credit Hours)***

This course will attempt to utilize the results of past studied and published statistical data to present a picture of the workings of the Liberian Economy. Structure of Liberia's economy, growth, development and structural change, distribution of income. The labor market, investment and savings, a review of the various sectors, monetary sector, public finance, foreign trade, planning.

***Econ.411- International Trade Theory (3 Credit Hours)***

A study of the role of financial institutions, specifically and central banks in the economy. Subjects include: Money and its value, national income, business cycles, monetary and fiscal policy and international banking.

***Econ.413- Public Finance (3 Credit Hours)***

An analysis of the problems faced by the government sector in the collection of revenues and budgeting of expenditures, government loans, and the problems facing developing countries.

*Co-prerequisites: Econ. 331 and Econ. 332*

***Econ.495- Labor Economics (3 Credit Hours)***

Survey of the theory and evidence of the structure of labor markets and the determinant of wage levels, unemployment, the distribution of income and employment opportunity. Special emphasis on rural-urban wage differentials, international labor migration, alien labor markets and public labor relations for achieving national objectives.

*Prerequisite: Senior Standing*

***Econ.412- Money and Banking (3 Credit Hours)***

A study of the role of financial institutions, specifically and central banks in the economy. Subjects include: Money and its value, national income, business cycles, monetary and fiscal policy and international banking.

*Prerequisites: econ. 331 and Econ 332.*

***Econ.498- Senior Research Paper (3 Credit Hours)***

In this course the senior student is expected to formulate and conduct an independent research project. While the subject matter is up to the student he is encouraged to look at problems of the underdeveloped countries.

*Prerequisites: Senior Standing and Soc.Sci. 301.*

***Econ.490- Development Economics (3 Credit Hours)***

A study of the problem facing the developing nations of the world. Studied are the varying models for growth, population problems, pollution control, United Nations Agencies of assistance, and foreign aid.

*Prerequisite: Senior Standing*

## **MANAGEMENT DEPARTMENT**

Management is a total system of planning, leading, controlling and organizing within an organization for the sole purpose of effective and efficient operations of that organization in order to achieve its objectives. This field of study is intended to train and develop future top or chief executives, supervisors, directors etc. to adequately run organizations. It is therefore the hope of this department that students enrolling in this area of studies take advantage of the courses that have been designed in order to meet this competitive task. Marketing, personnel, and operations managers as well as entrepreneurs all gain the basic training skills during this course of study.

## **COURSE DESCRIPTION**

***Mgt. 201 (Principles of Management) (3 Credit Hours)***

This course is a prerequisite to all other management courses. It is an introductory course intended to provide students with an overview of all the functions performed by managers in the operations of an organization. Management is viewed as a discipline and as a process. The scope of the course includes planning, decision-making, organizing, leading, and controlling. Basic management concepts will be applied in solving problems in organizations. Cases are used extensively to illustrate principles.

*Prerequisite: Sophomore standing.*

***Mgt. 311 (Organizational Behavior) (3 Credit Hours)***



The effective design and management of organizations requires the thoughtful application of knowledge concerning the behavior of people at work. This course provides an examination of organizational behavior from the perspective of the practicing manager. Understanding group and individual behavior as they relate to the organization are explored as critical factors in developing successful communication, motivation, leadership, culture, and a working organizational structure. This course discusses the necessity of assessing the internal and external environment of an organization as it relates to interpersonal skills in a dynamic and ever-changing business environment.

*Prerequisite: Requires Junior or senior status to enroll in this course.*

### ***Mgt. 301 (Marketing) (3 Credit Hours)***

Marketing is an integral part of all our lives. A large percentage of all our waking hours is taken up by efforts to market something (a product or an idea for example), or by efforts of others marketing to us. Whether you are a student, professor, physician, small business owner, politician, or even a partner in public accounting firm doesn't make a difference; you are engaged in marketing. Marketing is a total system of business actions carried out by managers in individual organizations, in the context of the larger economy, and indeed, in society as a whole. Regardless of whether managers are employed by a business or nonprofit organizations, are providers of goods and services, or are doing business domestically or globally, they need to understand the fundamentals of marketing.

### ***Mgt 306 (Human Resource/ Personnel) (3 Credit Hours)***

People (Human resources) play a vital role in the success of an organization- whether it is large or small company or organization." People are the most valuable asset. They must feel secure, important, challenged, in control of their destiny, confident in their leadership, be responsive to common goals, believe they are being treated fairly, have access to authority and open minds lines of communication in all directions". This course will expose the students to different methods available for human resource planning and forecasting to determine optimum level of staffing. Statistical models, econometric models, and the use of different trend analysis will be used for forecasting and projection.

*Prerequisite: Mgt 201 3 Cr. Hrs.*

### ***Mgt. 304 (Business Law) (3 Credit Hours)***

A course designed to introduce more important general principles of law as applied to business operations, including concepts relating to the law of contracts, bailment, agency, sales, and negotiable instruments. An introduction to the law regarding various forms of business organization including agency, partnership, incorporation and ownership and possession of property. Business Law is designed to familiarize the student with legal problems that arise in business. The main emphasis of the course will be on contract law and law as it relates to sales. Law relating to different forms of business ownership is also discussed.

*Prerequisite: Mgt 201*

### ***Mgt. 406 (Small Business Management) (3 Credit Hours)***

Presents critical areas that concern a small business, including, selecting a type of business, planning and organizing capital, requirements and sources, basic accounting, location and

layout, and employee relations. Students must produce a business plan as a course requirement.

*Prerequisites: Mgt. 201, 311, 3063:*

***Mgt. 434 (Managerial Acct.) (3 Credit Hours)***

This course examines the principles, techniques, and uses of accounting in the planning and control of business organizations from a management perspective. Identified are the budgetary process and related performance evaluation techniques, cost-volume-profit relationship, product costing methods, Just-In-Time (JIT) manufacturing, and Activity Based Costing (ABC). Related theory and application will also be reviewed.

*Prerequisite: Senior standing*

***Mgt. 400 (Operations and Productions Management) (3 Credit Hours)***

This course is concerned with providing students with a contemporary introduction to the field of operations management that is also grounded in the theory. It is a study of issues and problems related to managing global operations and current practices. Topics include international operations comparisons, international operations improvement and competitive leverage, issues critical to global operations, international cross functional coordination, coordinating international material flow, coordinating international process and product design, among others.

*Prerequisite: Junior standing*

***Mgt.401 (Purchasing & Material Management) (3 Credit Hours)***

This course will provide the students with an overview of the Materials Management aspect of purchasing including e-commerce and international sourcing. The satisfactory completion of the course should provide students with the initial knowledge required to effectively perform more advanced functions of Purchasing.

*Prerequisite: Junior standing Course Credit.*

***Mgt.405 (Senior Research Paper) (3 Credit Hours)***

***Mgt. 403 (Business Policy) (3 Credit Hours)***

This course is designed to integrate knowledge gained in the functional areas of business into the study of the organization as a whole. The objective of the course is to sharpen the students' diagnostic ability for decision-making. The course focuses on strategy formulation and implementation.

*Prerequisite: Junior or senior standing*

***Mgt. 404 (Financial Management) (3 Credit Hours)***

Financial Management studies corporate finance and capital markets, emphasizing the financial aspects of managerial decisions. It touches on all areas of finance, including the valuation of real and financial assets, risk management and financial derivatives, the trade-off between risk and expected return, and corporate financing and dividend policy. The course draws heavily on empirical research to help guide managerial decisions.

*Prerequisite: Junior or senior standing*

### ***Mgt. 406 (Quantitative Methods) (3 Credit Hours)***

Examines current issues in quantitative modeling and planning. Special emphasis placed on the managerial interpretation of results, and the problems of implementation.

## **PEACE STUDIES**

**Nature of the Program:** This is a non-degree interdisciplinary program. It seeks to broaden the students' knowledge and understanding of the major issues in the field of conflict and peace. It will focus on community reconciliation and peace building and move toward national reconciliation and post conflict peace-building.

**Objectives of the Program:** The program seeks among others to:

1. impart participants with the knowledge and skills required to identify the root causes of conflict; how to manage, resolve and prevent conflict;
2. provide students with the knowledge and skills that are helpful in peace-building in post conflict societies;
3. lead participants in identifying the root causes of the Liberian Civil War, discussing how the war was managed and resolved and how it can be prevented; and
4. Equip participants with the knowledge and skills required to contribute to international peace and understanding.

**Admission Qualifications:** There are two categories of participants in the program. In Category One are students of Cuttington University who have completed thirty credit hours and have a cumulative grade point of 2.50. Category Two comprises participants who are not attending Cuttington or recognized institution of higher learning but are professionals or individuals who have completed high school and are engaged in one of the three sectors of society. All participants in the program are required to submit a letter of application to the office of the Registrar and Dean of Admissions, Cuttington University and from there she or he will receive a list of admission requirements.

**Requirement for Certification:** Five courses are required to earn a certificate, each worth 3 credit hours, making a total of 15 credit hours. One of the five courses is required and can be selected from among these three: Introduction to Peace Studies, African History and Institutions and Conflict Management, Resolution and Prevention. A student must have a cumulative grade point of 3.00 to graduate.

**Duration of the Program:** Students in Category One will be certificated at the time of their graduation from Cuttington.

**Course Description:** This foundation or required course makes a critical inquiry into the history of pre colonial Africa with the view to highlighting the dynamics of the institutions of socialization, the mechanisms of conflict resolution and prevention. The colonial era is also examined to determine colonial legacies as they contribute to conflict in Africa today.

***Course No.: PS 102***

***Course Title: Introduction to Peace Studies***

***Prerequisite: Sophomore Standing***

This foundation course focuses on the genesis of peace studies, conflict mapping out conflict theory, responses to conflict situations and the role of the United Nations and civil society organizations in peace building.

**Course Description:** This course is designed against the backdrop of the death and destruction coursed by the Liberian Civil War in communities. It seeks therefore to address the questions of security, safety, reconciliation and transformation in small post conflict communities.

**Course No.: PS 110**

**Course Title: The Role of the Truth and Reconciliation Commission**

**Prerequisite: Any one of the two foundation courses**

**Course Description**

This course will introduce students to the primary objectives and key submissions that have been made before the T.R.C. Students will be encouraged and guided in their reading and review of relevant materials and interviews of key people. The instructor will also guide students in their understanding of the role of the TRC and its significance in building a climate for reconciliation in Liberia.

**Course No.: PS 103**

**Course Title: Conflict Management, Resolution and Prevention**

**Prerequisite: Sophomore Standing**

**Course Description**

This course raises a number of fundamental questions which relate to the causes, continuation and escalation of conflicts; the method of conflict resolution, ranging from grassroots activism to diplomacy and peace building which ranges from constitutional design to truth and reconciliation commissions. The questions will be examined mainly through case studies.

**Course No.: PS 104**

**Course Title: Post Conflict Peace-building**

**Prerequisite: Any two of the foundation courses**

**Course Description**

The course identifies the major priority areas in post conflict peace building and underscores the role of the state, civil society, private sector and the international community in grappling with those priorities.

**Course No.: PS 108**

**Course Title: The Ethnic and Religious Dimensions of Conflicts**

**Prerequisite: Any two of the foundation courses**

**Course Description**

This is a course in the ethnic and religious dimensions of conflict. It will help the student to understand the meaning of conflict and the sociological nature of conflict, distinguish and tell the difference between ethnic conflict and other conflicts; understand the function of religion in conflict and critically analyze the dissociating factors of conflict in a religious context.

**Course No.: PS 109**

**Course Title: Community based Peace Building**

**Prerequisite: Any two of the foundation courses**

## **THE COLLEGE OF NURSING**

The curriculum of Cuttington University Nursing programs reflects both the General Education requirements for all students and the requirements of the Liberia Board for Nursing and Midwifery, which accredits the program.

There are two categories of Nursing Programs for students enrolled in the Nursing College: Basic and Post Basic students, Basic students are enrolled at Cuttington University for their first courses in Nursing. They are admitted as freshmen and must comply with the General Education Requirements (except for R. Dev. 101 & 102 and Fren. 101 & 102) for admission upon completion of the third semester (after the freshman year). A student who desires to remain in the program must make a formal application to the Nursing College and must maintain a grade point of 2.5. The Post Basic Nursing or RN program is 5 to 6 semesters plus 2 semesters of vacation schools between the second and third semesters and the fourth and fifth semesters. During the first semester (of full time status) Post Basic students must write challenging examinations in Medical-Surgical, Community Health Nursing, Maternity, Pediatrics, Psychiatric Nursing and Communicable and Tropical diseases. Students who have not taken the above courses during basic training will be required to do them as prescribed by the Nursing College faculty. Students who do not score a grade of "C" or better in the challenging examinations must enroll in that course. Students scoring a grade of "C" or better will be granted an exemption with credit for each course with the approval of the Academic Standing Committee (A.S.C.). The total number of credit hours obtained from the challenging examinations is 33.

## **DESCRIPTIONS OF COURSES**

### ***Nsg. 101-Fundamentals of Nursing I (3 Credit Hours)***

This course is a general introduction to Nursing including its history and principles, the present status of the profession, nursing ethics, nursing arts and nursing theories and assumptions of the Nursing Science. It provides the student with the knowledge that will assist him/her in making decision as to the necessary actions needed to provide holistic care. The concepts of health vs. illness prevention vs. cure are explored as the student begins to practice basic techniques.

### ***Nsg. 102-Fundamentals of Nursing II (5 Credit Hours)***

Course description: This course as a foundation of Nursing Courses, is part two which starts with elimination and introduces the nursing measures with concentration on the common elimination disorders and basic measures, preparation and administration of medication, nursing responsibilities in assisting physician for therapeutic procedures, safety measures in administering oxygen and nurse's responsibilities for a patient

approaching death. The learning process will include the use of classroom, demonstrations, and available hospitals.

***Nsg. 201-Tropical & Communicable Diseases (3 Credit Hours)***

This course is designed to present the disease patterns, treatment and methods of prevention of communicable and tropical diseases which affect both adults and children. It is expected that students will apply knowledge already gained in their basic science and nursing courses to understand this and advanced nursing courses.

***Nsg. 204-Principles of Nutrition (3 Credit Hours)***

This course is a study of normal nutrition as well as psychosocial, cultural and economic needs of clients and families. Emphasis will also be placed on maintenance of nutrition, prevention of diseases as well as nursing care of persons with pathology due to a problem in nutrition during the life span: Mothers, newborn, children, adolescents, adults and aged persons. Special attention is given to cultural nutritional habit, or taboos that affect the health of the family and community growth and development. Attempts are made to answer questions relating to food production, storage, marketing and family use.

***Nsg. 205-Clinical Pharmacology (3 Credit Hours)***

This course deals with the exploration of the bioavailability of drugs as well as the assessment of their use in each body system. Action, side action, contraindication, adverse reactions, generic and trade names as well as socio-cultural economic use of drugs will be explored.

Assessment will also be made of the bioavailability of drugs during the life span: Newborn, mothers, children; adolescents, adults and aged.

***Nsg. 301-Psychiatric Nursing I (3 Credit Hours)***

This is a 1<sup>st</sup> part subsequent course that provides the study of fundamental theory of Psychiatric/mental health nursing. It is concerned with the dynamics of human behavior and the therapeutic interpersonal relationship of the nurse and the client individually and in groups.

***Nsg. 302-Psychiatric Nursing II (2 Credit Hours)***

Psychiatric Nursing II is a continuation of Psychiatric I, and is a study of fundamental theory and practice of Psychiatric/Mental Health Nursing. The practice is concerned with the dynamics of human behavior and the therapeutic interpersonal relationship of the nurse and the client individually and in groups. Guided clinical experiences with hospitalized and non- hospitalized persons with a wide range of emotional responses to life situations are provided.

***Nsg. 303-Maternal Nursing (3 Credit Hours)***

This course focuses on the care of women during wellness and the management of pregnancy, labor, delivery, postpartum and the newborn. Guided clinical experience on the OB/GYN units is correlated with classroom instruction.

***Nsg. 304-Gynecological Nursing (2 Credit Hours)***

This course focuses on the conditions that place the woman, fetus, infant and family at risk. It includes high risk assessment of pregnancy complication, preexisting and gestational conditions, labor, birth complications, postpartum and newborn complications, care management and loss and grief. A guided clinical experience in the units is correlated with classroom instruction.

***Nsg. 305-Medical Nursing (5 Credit Hours)***

This is the first of two courses which focus on nursing care of adults who have illnesses requiring medical and /or surgical intervention. Students develop skills in detecting signs and symptoms of illness and planning nursing care for patients with common medical and surgical conditions.

***Nsg. 306-Surgical Nursing (5 Credit Hours)***

This is the 2<sup>nd</sup> part of this course which focuses on nursing care of adults who have illnesses requiring medical and/or surgical intervention. Students develop skills in detecting signs and symptoms of illness and planning nursing care for patients with common medical and surgical conditions.

***Nsg. 307-Pediatric Nursing II (3 Credit Hours)***

This course is part one of the Nursing Care of Children. It introduces the students to the concept of family-centered care of children. The course also gives an opportunity to the student to explore the various methods of child health promotion and maintenance. In addition, the course prepares the students to meet the developmental needs of childhood. Guided clinical experience on the children's ward is correlated with classroom instruction.

***Nsg. 308-Pediatric Nursing II (2 Credit Hours)***

This is the continuation of Pediatrics Nursing part one, Nsg 307, emphasizing nursing needs of children with complex and critical health care problems. Guided clinical experience on the children's ward is correlated with classroom instruction.

***Nsg. 309-Health Assessment (4 Credit Hours)***

This course is designed for senior student in health care who is learning to talk with patients, examine them and to understand and assess their problems. It introduces the student to the hospital, clinic and community setting.

It covers the skills related to interviewing and the Health History, assessing and evaluating the health status of various clients. The student is also introduced to the extended role of the nurse in screening clients in any primary care setting. The student should have had basic courses in human anatomy and physiology and related courses.

***Nsg. 401-Primary Health Care I (3 Credit Hours)***

This course, a two-part Community Health/Primary Health Care & Epidemiology sequence offers the student discussion of key issues to partnerships that need to be formed in order to promote health and welfare of communities in Liberia and globally.

Guided clinical experiences in the community are correlated with classroom instruction.

This course introduces the concept principles and strategies of primary health care

(PHC), with emphasis on community involvement and the use of locally available resources. It presents the parameters, which must be assessed to determine the health status of a community and the community's ability to deal with its own health problems. The course will also introduce the concepts and application of epidemiology in health programming and service delivery.

***Nsg. 406-Primary Health Care/Community Health Nsg. (5 Credit Hours)***

This Community Health Nursing (CHN)/Primary Health Care – II Course introduces the students to current concepts and developments in Community Health Care, using the PHC concepts. It will assist the students to gain knowledge and skills in working with the community to identify and resolve community health problems. The course will consider community aggregates, structures and dynamics. The students will also be provided with the opportunity to be exposed to current trends in global health programs.

***Nsg. 403-Senior Nursing Research (3 Credit Hours)***

This course is a continuation of Research Method I, which guides the student while writing a Research Paper through the various steps of the research process and at the end prepares the student to present Research finding to instructors, peers, etc.

***Nsg. 404-Curriculum and Instruction (3 Credit Hours)***

The course introduces the concepts, principles and theories of curriculum development, teaching strategies and evaluation of learning and educational programs in nursing. The students carry out practical teaching to develop the teaching skills in the hospital, health center, community and school of nursing settings.

***Nsg. 405-Nursing Administration & Management (4 Credit Hours)***

This course is designed to teach students about the management process and leadership and to supply the practicing nurse with practical information about nursing administration. Students will also be engaged in planning workshops, seminars and writing a proposal.

***Nsg. 408-Professional Development (3 Credit Hours)***

The first part is designed to give students the specialized knowledge and skills needed and their application in a Hospital setting. Clinical times will be worked out with students and Phebe hospital staff. Faculty of the Nursing Division will be informed about interest of students and progress.

Part II gives the student the opportunity to conduct workshops, presentations, demonstration labs and seminars. This will enable students practice the skills and knowledge and provide a starting point for their professional.

***Nsg. 410-Community Health Empowerment (3 Credit Hours)***

This course will give the students greater insights into the process of empowering community aggregates to take full responsibility for their health, through decision making process. The students will learn about the process of community entry, social mobilization and organization, community action planning, implementation and evaluation.



***Nsg. 411-Reproductive Health (3 Credit Hours)***

This course is designed to teach nursing students about Reproductive health Care services. It lays emphasis on the health of women before, during and after the birth of a child.

## **THE COLLEGE OF NATURAL SCIENCES**

The College of Natural Sciences offers the Bachelor of Science (B.Sc.) degree in several areas: Biology, Chemistry, and Mathematics, with the hope of establishing a Physics Major in the near future. Students in this College may major in two areas simultaneously. In order to do so they must have a "B" average or better in the two major areas and also have the approval of the two respective colleges at the beginning of the fifth semester. Any two majors offered at Cuttington may be selected. The college may review the performance of the students from time to time to advise the student whether or not to drop one of the majors and concentrate on the other. A student who chooses to declare a double major must satisfy the requirements of the appropriate colleges. In addition to the major area, students may choose any area from the Science College for a minor area of concentration. All students of the college are also required to complete the General Education requirement before embarking upon their major areas of study (see general Education Requirements).

## **DESCRIPTIONS OF COURSES**

***Bio. 101- 102 – Basic Biology (4 Credit Hours)***

A general introduction to living things, survey of animal and plant kingdom, viruses, cell division, organization and functioning of the human body, inheritance, evolution of ecology. The laboratory work illustrates materials discussed in lecture and use of The scientific methods. 3 hours lecture and 3 hours laboratory.

***Bio. 106 – Human Anatomy and Physiology (4 Credit Hours)***

This is an introductory course for Nursing majors emphasizing the molecular physiological approach to the study of various structures and processes of the human body. Reference systems for description: the integumentary system; the skeletal system; the articulatory system; the muscular system; the circulatory and lymphatic system; the respiratory system; the excretory system (urinary system); the endocrine system; the reproduction system. (This course will replace Biology 103-104). 3 hours lecture and 3 hours laboratory.

***Bio. 209 – General Botany (4 Credit Hours)***

Introduction and background history; the plant cell and its structure; function of organelles; cell division (mitosis), structure and functions of roots, stem, leaves photosynthesis; respiration; plant and water relations; plants and minerals; vegetation propagation; flowers, seeds, fruits; seeds and seed dispersal; seed germination; classification of plants.

***Bio. 211 – Invertebrate Zoology (3 Credit Hours)***

Comparative study of major invertebrate phyla with reference to representative types of protozoa, porifera, Colenterate, Platyhelminthes, Aschelminthes, Anellida, Anthropoda, Mollusca and Echinodermata. Laboratory work includes dissection of the earthworm, snail, cockroach and crayfish, study of slides. Students should have a general knowledge of the more common invertebrate animals. 3 hours lecture and 3 hours laboratory.

*Prerequisite: Bio. 102*

***Bio. 212 – Comparative Chordate Anatomy (3 Credit Hours)***

A comparative study of chordates

***Bio. 202 – Microbiology (3 Credit Hours)***

This course is centered around micro-organisms and human health and related laboratory procedures. It will also include culture methods, principles of sterility, and aseptic techniques. 3 hours of lecture and 3 hours of laboratory.

*Prerequisite: Bio. 102 or Bio. 106*

***Bio. 321 – Ecology (4 Credit Hours)***

This course will be mainly based on aquatic and terrestrial ecology. Principles stressed through extensive field work in selected counties with Bong County as a focal point.

Limnological phase with emphasis on synecology in various ecosystems. 3 hours lecture

*Prerequisite: Bio. 102*

***Bio. 331 – Genetics***

The basic principles and problems of Mendelian, classical and molecular genetics.

Emphasis will be placed on recent advance in the field. In the laboratory drosophilia and small mammals will be used. In addition consideration of salivary chromosomes, the nature of the gene, chromosomal irregularities, polyploidy and mutations will be given. 3 hours lecture and 3 hours laboratory.

***Bio. 411 - Entomology 3cr. hrs. (3 Credit Hours)***

Course Description: General morphology of insects, taxonomy of insects with special reference to West African fauna; insect physiology, digestion, excretion, reproduction, metamorphosis, respiration; a survey of destructive and useful insects with specific reference to West Africa.

***Bio 311 – Embryology (3 Credit Hours)***

Course Description: This course discusses, Historical Background of Embryology, Genetic Background, Reproductive Organs and the Sexual Cycle, Fertilization and the Beginning of Embryogenesis, Gastrulating and the Formation of the Primary Organ Rudiments Gastrulation, Organogenesis, Growth and Differentiation.

***Bio. 341 –Parasitology (3 Credit Hours)***

Course Description: The structure, life history and identification of the more important parasites included under protozoa. Platyhelminthes and Nematoda. Laboratory work includes collection of parasites from various hosts and their detailed study.

3 hours lecture and 3 hours laboratory.

*Prerequisite: Bio 211*

***Bio. 342 -Immunology (3 Credit Hours)***

Course Description: History of Immunology, initiators of immunological responses; antigens and haptens; immunochemical properties of immuno-globulins; serologic reactions; precipitation; agglutination; immuno chemistry of complement, phagocytosis; invivo aspect of immunology; natural and acquired immunity; the immediate of immunoglobulin dependent hypersensitivity; cell mediate hypersensitivity; tissue transportation and tumor immunology. 3 hours lecture

*Prerequisite: Bio 312.*

***Bio. 322 - GENERAL PHYSIOLOGY (4 Credit Hours)***

COURSE DESCRIPTION: This course of General Physiology is a 4 credit hour course that will cover the functional and structural aspect of the cell and the various systems and their physiological aspects. Special attempt has been made to choose those aspects of human physiology that will lead the student to an understanding of basic principles and concepts.

Bio. 372- Basic Hematology

Course Description: Basic hematology involves studying blood as a tissue, looking at the various cells that comprise blood, how blood cells are made, blood plasma and its composition, RBC, RBC count determination and calculation, WBC, WBC count determination and calculation, Platelet, Platelet count determination and calculation, Blood banking, Blood typing, Apheresis, Bone marrow transplant, Blood diseases, disorder and infections.

*Prerequisite: Bio. 312*

3cr. hrs.

Bio. 332 - Histology and Microtechnique

Course Description: Types of Tissues; Microscopes. Tissue extraction, preservation; Tissue processing and slide preparation. Staining procedure and Microphotography

*Prerequisite: Bio. 102*

4cr. hrs.

**DESCRIPTION OF COURSES**

Chem. 101-102 – Principles of Chemistry

Fundamental concepts of the law and theories of chemistry including atomic structure and chemical bonding, study of gas laws, solutions, acids, bases, salts, oxidation-reduction reactions, equilibrium and chemistry of some common elements and their compounds. The laboratory work includes verification and application of chemical principles studied in lecture classes, preparation and properties of some elements and their compounds and qualitative analysis. 3 hours lecture, 1 hour tutorial and 3 hours laboratory.

*Prerequisite: One unit of high school chemistry or Phys. Sci. 112*

4 cr. hrs.

Chem. 103-104 – Introduction to Clinical Chemistry

A terminal course designed to survey the essential of general, organic and biochemistry, and study of their applications to the field of medicine. The course is

intended for nursing majors. The laboratory work is correlated with the lecture. 3 hours of lecture and 2 hours laboratory.

Prerequisite: One unit of high school chemistry. No credit for chemistry majors.

3 cr. hrs.

#### Chem. 231-232 – Organic Chemistry

A study of the important types of organic compounds with emphasis upon the reaction mechanisms. Laboratory work includes synthesis and study of reactions of different types of organic compounds and their identification by chemical tests as well as by using various spectroscopic methods. 3 hours lecture and 3 hours laboratory.

Prerequisite: Chem. 102

4 cr. hrs.

#### Chem. 241 – Inorganic Chemistry I

An extended study of inorganic chemistry with emphasis on the theoretical and empirical aspects of the periodic chart; structure and bonding in organic compounds; ligand field theory. 3 hours lecture.

Prerequisite: Chem. 102.

3 cr. hrs.

#### Chem. 242 – Inorganic Chemistry II

Continuation of Chemistry 241. The more recent theoretical advances in the interpretation of bonding and reactivity in in-organic compounds. Organometallic Chemistry-synthesis, structure and bonding. Biochemical applications, and solid states. Laboratory work includes inorganic preparations and separations, or qualitative analysis. 3 hours lecture and 3 hours laboratory.

4 cr. hrs.

#### Chem. 401 – Analytical Chemistry I

A treatment of the theory of modern chemical analysis. Topics include acid-base, redox and complexometric equilibria, gravimetric and analytical applications of precipitation reactions, organic functional group analysis and statistical methods of analysis of analytical chemistry the laboratory experience with the methods of analysis considered in theory. 2 hours lecture and 6 hours laboratory.

Prerequisites: Chem. 232 and 242

4 cr. hrs.

#### Chem. 402 – Analytical Chemistry II

Theory and application of the principles of electrometric, spectrometric and chromatographic methods to the modern problems of analytical chemistry. Topics covered include potentiometric, conductometric and amperometric titrations, polarography, visible, ultraviolet, infrared, atomic absorption, flame and emission spectroscopy and some chromatographic methods. Laboratory work illustrates use of various instruments for routine analytical work and research tools. 3 hours of lecture and 3 hours of laboratory.

4 cr. hr.

#### Chem. 371 – Principles of Biochemistry

The course will cover the ionic environment and buffers; amino acids and peptides; proteins; enzymes: nucleotides and nucleic acids; lipids and biomembranes; carbohydrates and carbohydrate metabolism; citric acid cycle; photosynthesis, amino acid metabolism; and oxidative phosphorylation. 3 hours of lecture and 3 hours of

laboratory.

Prerequisite: Chem. 232

4 cr. hrs.

Chem. 341- PHYSICAL CHEMISTRY for Biologists

Course Description: This course is an extension of the concepts from General Chemistry- specifically the study of thermodynamics, kinetics, and spectroscopy. Biological examples will be used throughout, so an understanding of basic biochemical principles is also necessary.

Prerequisites: Chem. 102 and Math 211

4cr. hrs.

Chem. 351- Physical Chemistry I

Course Description: Chemistry 351 is the first two Physical Chemistry courses. It is a core course requirement for Chemistry majors. Science Education majors may take it as an elective. The course is an extended study of Physical chemistry with emphasis on problem solving in the kinetic-molecular theory, thermodynamics and quantum mechanics. Reaction kinetics, transport processes, photochemistry and spectroscopy are covered in Chemistry 352.

Prerequisites: Chem. 232, 242, Math 212 and Phys. 201

3 cr. hrs.

Chemistry 281

Course Description- Chemistry 281 is a one- semester course. It is a core requirement for chemistry majors. The course is basically designed with emphasis on Health and Safety in Academic and Industrial chemistry laboratories, handling and disposal of chemicals, preparation of special analytical reagents, guide to using the Chemical listing, storage codes, chemical warehouse management, and other topics deemed necessary for the preparation of the students for work in factories and industries.

4 Cr. hrs.

Chem. 420 - Science and Technology of Latex Rubber

Course Description: Chem. 420 – This course is specially designed for applications to natural rubber quality control and the processing industry in Liberia. The content includes an introduction to polymer chemistry with emphasis on Latex rubber chemistry, analysis of latex rubber and compounding of rubber.

Prerequisite: Chem. 401

3 cr. hrs

Chem. 311 - Environmental Chemistry

Course Description: Natural water chemistry; introduction to water pollution, introduction to soil chemistry and principles of soil analysis. Disposal of solid wastes. Air pollution; natural pollution and purification. Energy production and its impact on the environment. 3 hours lecture and 3 hours laboratory.

Prerequisite: Chem. 302 Or the consent of the instructor.

4cr. hrs.

Math 010 – Basic Mathematics I

A refresher course designed to meet the needs of students who show by their placement test that they are not ready for Mathematics 111. Emphasis on speed and efficiency in arithmetic computations. 3 hours lecture.

0 cr. hrs.

#### Math101–102 – Pre-Calculus

The real numbers function and relations, inverse functions, exponential and logarithmic functions, trigonometric functions, vectors and complex numbers, systems of equations. 4 hours lecture.

Prerequisite: satisfactory grade on the placement test.

4 cr. hrs.

#### Math. 111-112 – Principles of Mathematics

This two semesters survey course is intended primarily for those who plan to take no more Mathematics courses. Topics include introductions to sets, logic, mathematical systems, algebra, geometry, probability, and statistics.

Prerequisite: Satisfactory grade on the placement test.

3 cr. hrs.

#### Math. 211-212 – Calculus I and II

Analytic geometry, limits, continuity, differentiation and integration, applications of differentiation and integration, analytic geometry of the plane and elementary calculus. Prerequisite: Math. 102 or satisfactory grade on the placement test.

3 cr. hrs.

#### Math. 221 – Mathematical Statistics

Counting principles, samples spaces, composition of experiments, events, functions on a sample space. Probability, independent events, distribution, functions, random variables, expectation, moments of a distribution, variance, chebyvhev and related in equalities, generations, law of large number.

Prerequisite: Math.211; Co-requisite: Math. 212

3 cr. hrs.

#### Math. 311 – Calculus III

Vectors in n-space, calculus of vectors and applications, functions of several variables differentiability and the gradient, the chain rule, directional derivatives, line integrals, repeated partial derivatives, partial differential operators, Taylor's formula.

Prerequisite: Math. 212

#### Math. 312 – Calculus IV

Maxima and minima, multiple integrals, the change of variables form. Stoke's general theorem, divergence theorems and applications, general scalar product, Fourier series.

Prerequisite: Math. 311 and Math. 322 (which may be taken concurrently).

3 cr. hrs.

#### Math. 322 – Differential Equation

Elementary differential equations, linear differential equations, equations with constant coefficients, equations with undetermined coefficients differential operators, laplace transforms and applications, equations of higher order and higher degrees, power series solutions, Bessel's and Legender's equations.

Prerequisite: Math 212

3 cr. hrs.

#### Math 180 - Introduction to Computer

Course Description: Introduction to Computers (Math 180 is a beginner's course for students. It exposes them to the basis of the Computer. Math 180 also helps the

student to benefit from hands-on keyboard techniques and introduces the following software programs in a special way to the student. Basic Typing, Microsoft Windows, Microsoft Word, Microsoft Excel, and Using the Internet

3 Cr. hrs.

Math 170 – Introduction to Statistics

Course Description: Statistics involve the science of collecting, presenting, analyzing, and making a more meaningful and/or effective decision. The study of Statistics is broken down into two parts: (1) Descriptive Statistics and (2) Inferential Statistics. Descriptive Statistics deals with the procedures used to organize and summarize masses of numerical data. Inferential Statistics on the other hand, deals with the methods used to find out something about a population, based on sample information. In essence, Inferential Statistics deals with probability

3 Cr. hrs.

Prerequisite: Math 102

Phys. 101 - Introductory Physics I

Course Description: Physics 101 is the first part to the Introductory Course, which is structured to give a student the basic skills required for higher Physics courses and other related courses that may be needed for success in their discipline. It is strongly recommended that students form small group of 4 – 5. Each group makes a study schedule convenient to all members and the members of each group meet regularly to solve problems. Each member of a group should attempt assigned problems and other related problems prior to the group meeting time.

Co-requisite: Math 101 and 102

4cr. hrs

Phys. 102 - Introductory Physics II

Course Description: This 4-credit hour course is a continuation of Physics 101 and continues coverage of the fundamental principles of mechanics, thermodynamics, electromagnetism, wave motion, sound, and optics. The lab work will be correlated with lecture.

Co-requisite: Math 101 and 102

Phys. 201 General Physics I

Course Description: This is a 4-credit hour course that is a core course. The course covers measurement of physical quantities and vectors, motion in one to three dimensions, forces and Newton's laws, work and energy, conservation of energy, conservation of momentum, collisions, kinematics and dynamics of rotational motion, angular momentum, simple harmonic motion, gravitation, fluids, temperature, ideal gas law, heat, and thermodynamics.

Prerequisite: Math 211

4cr. Hrs

THE COLLEGE OF THEOLOGY

THE BACHELOR OF ARTS WITH A MAJOR IN THEOLOGY

(ORDAINED MINISTRY)

Rev. Fr. James Tamba, BTH, D.MIN, Dean

Cell#: 06812845

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The emphasis of the College of Theology is upon the training of those who are seeking ordination, or serving as teachers of religious education, or as pastoral counselors in private or non-private institutions or agencies.

In addition to the general education requirements, students in the college of Theology must fulfill all the departmental requirements as spelled out in the program of study.

#### COURSE DESCRIPTIONS

##### Rel. 202-Church History I-Early Church

Until 800 A.D.

A survey of the Church's growth and development from the Apostolic age to the Seventh General Council. Particular consideration is given to the great Fathers of the early Church, the rise of monasticism and the development of the papacy.

3 cr. hrs.

##### Rel. 203

##### Church History II-800 A.D. to Present

Includes a study of the theological achievements of the Middle Ages and especially those thoughts and events that led up to the Reformation. "The age of discovery", rationalism, the rise of science and secularism, the emergence of modern schools of thought will be explored in their impact upon today's church and society.

3 cr. hrs.

##### Rel. 241-Church Education

A survey of basic educational and theological principles which affect communication of Christian dogma, tradition, and literature. Special consideration will be given to catechetical methods and approaches mentioned in the Bible.

3 cr. hrs.

##### Rel. 303-Philosophy of Religion

It is to assist the students to understand and ably apply the basic concepts and principles of philosophy in their study of religion.

3 cr. hrs.

##### Rel. 310-Introduction to the Old Testament I

This course will cover the Pentateuch and historical books of the Old Testament. Special emphasis will be given to the mastery of content and the development of basic skills in applying literacy and form criticism.

3 cr. hrs.

##### Rel. 311-Introduction to the Old Testament II

This course will cover the Prophets and the Psalms and Wisdom literature. Special emphasis will be placed on the understanding of the Prophetic nature of the Church's ministry.

3 cr. hrs.

##### Rel. 312-Introduction to the New Testament I

An overview of the life and teachings of Jesus as contained in the four gospel



traditions with special attention to content. The theological distinctive of each gospel will be mastered as well as introductory issues in gospel criticism.

3 cr. hrs.

Rel. 313-Introductory to the New Testament II

An overview of the history and teachings of the early Church contained in acts-Revelation with special attention to content. The theological contribution of each book and the critical issues each raises will be discussed.

3 cr. hrs.

Rel. 314-Biblical Interpretation

The course offers students review and practice in the techniques of studying, interpreting, and applying the vernacular Bible. Hermeneutical practice (rather than the history or theology of Biblical interpretation) receives major emphasis in the course. Students will refine their skills both in private or individual Bible study, and leading small-group Bible discussions.

3 cr. hrs.

Rel. 315-Old Testament Exegesis

It is to provide the student with the Biblical knowledge and to theologially interpret the "Holy Bible" from Genesis to Malachi.

3 cr. hrs.

Rel. 316-New Testament Exegesis

It is to provide the student with the Biblical of the New Testament from Matthew to Revelation and be able to interpret it.

3 cr. hrs.

Rel. 321-Moral Ethics and Social Values

An effort to understand the ethical position established in Christian tradition, to debate its validity, and to determine what application it may have to the current ethical issues in Africa. Students will learn to determine from the sources (Old and New Testament) how Biblical ethics developed and how it was interpreted in various ways by different churches. Consideration will be given to several modern attempts to make Christian ethics relevant to modern man.

3 cr. hrs.

Rel. 335-Church History of Africa and Liberia

The history of the church in Africa and Liberia with special attention to ancient African Christianity (North Africa ), the influence in the Western missionary movement, and modern Church growth, especially in the Anglican Church.

3 cr. hrs.

Rel. 350-Homiletics

A formal approach is made to the sermon: its preparation using the skill of exegesis; its types and models meaningfully adapted to an African liturgical year; and delivery using the basic principles of communicating theory which will include those methods uniquely developed within African setting.

3 cr. hrs.

Rel. 401-Systematic Theology I

The course is designed to acquaint the student with the major doctrines of the Christian faith, their scriptural basis and evangelical importance. Lectures will cover the themes of (1) knowledge of God, (2) Doctrine of God (3) Christian anthropology,

and (4) the Doctrine of Sin.

3 cr. hrs.

Rel. 402-Systematic Theology II

In this continuation of Rel. 401 the following themes will be discussed: (1) Doctrine of Person and Work of Christ, (2) doctrine of the Holy Spirit and Salvation, (3) Doctrine of the Church and Sacraments, and (4) Doctrine of the Consummation of Psychology.

3 cr. hrs.

Rel. 421-Liturgy and Worship I

An overview of the Rites of the Church, beginning with Jewish antecedents and tracing this development to the present. Special attention is given to the study of indigenous forms of liturgy. 3 cr. hrs.

Rel. 422-Liturgy and Worship II

An overview of the rites of the Church, beginning with Jewish antecedents and tracing this development to the present. Special attention is given to the study of indigenous forms of liturgy. 3 cr. hrs.

Rel. 425-Denominational Polity

The ecclesiastical and political structure within which the Church functions are viewed. The constitution, canon and discipline with their developmental histories are studied. Special attention is given to the denominations represented by the students enrolled. 3 cr. hrs.

Rel. 430-Old Testament Theology

The predominant themes of the Old Testament will be examined in the context of the development of the faith and history of Israel. 3 cr. hrs.

Rel. 431-New Testament Theology

A study of the major concepts employed by the New Testament writers to express their faith in Jesus as Lord. The evidence of the beginning formation of the creedal statements will be studied. 3 cr. hrs.

Rel. 463-Missiology

An introduction to the history, theology and practice of evangelism. Special attention will be given to the study of Church growth models and their methodologies.

3 cr. hrs.

Rel. 491-Comparative Religion

A comparative study of African traditional religions, Christianity, and Islam. Presentations of classical theories as to the origin, history and literature of these faiths will be given.

3 cr. hrs.

Rel. 492-Seminar Thesis

Special aspects of areas of religious studies based upon particular interest and background are considered. Emphasis is given to phenomenology and hermeneutics.

3 cr. hrs.

Rel. 493-Pastoral Theology

This course offers students a study of the history, Biblical foundation, and theology of pastoral work. Although some developmental theories are explored, the focus is on the actual counseling situation often encountered by a parish priest. 3 cr. hrs.

HIV/AIDS 101

This course is designed to provide the students with the knowledge of a new plague

that is affecting so many people all over the world. It is to educate the students so that they can disseminate the effect and control of it.