FEDERAL REPUBLIC OF NIGERIA

NATIONAL COMMISSION FOR COLLEGES OF EDUCATION ABUJA

PRE-NCE MINIMUM STANDARDS FOR NIGERIA CERTIFICATE IN EDUCATION

2012 Edition

TETF PROJECT, 2012

FEDERAL REPUBLIC OF NIGERIA

NATIONAL COMMISSION FOR COLLEGES OF EDUCATION

PRE-NIGERIA CERTIFICATE IN EDUCATION

MINIMUM STANDARDS

PRE-NCE

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FOREWORD

The National Commission for Colleges of Education, NCCE, was established by an Act in 1989 as the third leg of the tripod of excellence in the supervision of tertiary education in Nigeria. Its mandate includes, inter alia, the laying down of Minimum Standards for all programmes of teacher education and accrediting their certificates and other academic awards. Since its inception, my Ministry has been pursuing very doggedly and supporting the Commission's goals of **quality assurance**. We shall not relent in our match towards the realization of the set goals of producing quality teachers for our rapidly expanding basic education sector.

In response to the transformation agenda of the present administration and the widespread criticism that the existing NCE programme is tunnel visioned, the NCCE has revised and updated the existing **NCE Minimum Standards** documents. New programmes have been added to address the existing teacher needs at the basic education level.

The new programmes are now more focused toward the attainment of **Education for All (EFA)** demands and **the Millennium Development Goals (MDGs)**. In addition to the existing two subjects' combination in NCE programme, which is suited for the preparation of the B.Sc. (Ed)/B.A (Ed) degree programmes, the new Minimum Standards document is now targeted at producing specialist teachers for:

(i) Pre-Primary Education or Early Childhood & Care Education,
(ii) Primary Education,
(iii) Junior Secondary Education,
(iv) Adult and Non-Formal Education,
(v) Special Needs Education.

Thus, for those who are aspiring to go further, the new programmes are suited for B.Ed degrees. The new programmes are level specific. This simply means that we are beginning to prepare specialized teachers for each of the five levels of basic education listed above.

In view of the fundamental changes in teacher education that the above new programmes represent, an **Implementation Framework** to guide NCE-awarding institutions has been produced to accompany the revised and expanded Minimum Standards documents. The Framework sets standards for curriculum practice. It provides the background that has informed the development of the new teacher education programmes and also gives practical guidelines as to what is expected to be done by administrators, teachers and students in the process of implementing the curriculum. It is believed that this, along with other innovative ideas that have been woven in, will ensure that there is uniformity in practice across all the NCE-awarding institutions.

I commend the efforts of NCCE in its timely response to challenges and its bid to raise the quality of our pre-service teachers.

I congratulate the Executive Secretary and his staff for accomplishing this national assignment.

Prof. (Mrs.) Ruqayyatu A. Rufa'I, OON **February, 2013**

Honourable Minister of Education

Federal Republic of Nigeria

INTRODUCTION

In the last five years, the NCCE has been involved in a number of activities (including conferences, workshops, critiquing sessions, etc.) to address the discrepancy between teacher certified qualifications and the quality of their on-the-job performance. It has become clear that a major part of the problem has been an observed dislocation of the existing NCE programme from its service sector.

The mandate of the teacher training programme at the NCE level, which is the recognized minimum teaching qualification in Nigeria, is to produce quality teachers for the Basic Education sub-sector. The Basic Education sub-sector encompasses the following categories of education:

(i) Pre-Primary Education or Early Childhood & Care Education,
(ii) Primary Education,
(iii) Junior Secondary Education,
(iv) Adult and Non-Formal Education,
(v) Special Needs Education.

Each of these categories of education has an approved national curriculum which is distinctive and extensive in addition to those of the Senior Secondary Education (which remain content specific). Thus, if the NCE is to remain relevant to the sub-sector it is intended to serve, it must do more than it is presently doing. It must prepare teachers with knowledge and skills required to teach effectively at the different levels and areas of the basic education programme, without being oblivious of the needs for higher education of the beneficiaries. The new Minimum Standards document is the output of the thinking in this regard.

The emergent Minimum Standards documents, especially those for the Vocational and Technical education programmes, are accompanied with Curriculum Implementation Guidelines to assist institutions and especially the educators, in the implementation of the new ideas.

While the debates on the focus of the new Minimum Standards document were going on, the Commission was also engaged in a number of related activities. A separate group was engaged in the review of the methods of instruction. Another looked at how to provide an enabling child/learner friendly environment for our teachers and yet another reviewed the minimum professional standards for teacher educators.

The minimum standards for teacher educators define the minimum the educators should know and be able to do as well as their expected minimum dispositions towards their work, if they are to remain/progress in their career.

The need to review our system of evaluation to align with the new thinking was also recognized. Therefore, a new instrument, **Quality Assurance Toolkit**, that would address institutional evaluation as well as the needs of educators in the performance of their tasks, has been developed and circulated.

The revised Minimum Standards document has taken cognizance of these developments and has thus been expanded to meet the identified needs. It has also taken the advantage of the review exercise to update the minimum contents, using those provided in the Basic Education Curriculum. The document retains the present 2-subject combinations to allow for the preparation of would-be teachers in the senior secondary school and as entry qualification into the B.Sc. (Ed)/B.A (Ed) programmes.

As can be inferred, considerable hard work has gone into these various documents and particularly, into the putting together of all these into the revised Minimum Standards documents.

I wish to acknowledge the contributions of our Development Partners. The COL and DFID, through the ESSPIN programme provided the initial impetus, technical assistance as well as materials that aided the development of the new Quality Assurance Toolkit. The Commonwealth of Learning (COL) also, assisted the Commission in mainstreaming the principles and methods of child-friendly schools into the NCE curriculum as well as built capacities of teacher educators in ICT. UNICEF must be commended for its assistance in the development of the curriculum for Early Childhood Care and Education (ECCE).

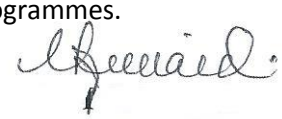
I also acknowledge the efforts of the Academic Programmes Department of the NCCE, which coordinated the various activities that led to the emergence of the revised NCE Minimum Standards documents for Colleges of Education and their sister institutions. In particular, I commend all those who contributed to the planning, writing, debating and critiquing of the documents. I should also thank the FCE (T) Potiskum that served as a guinea pig during the trial-testing stage of the Quality Assurance/ Accreditation Instrument.

Special thanks are also due to the Provost of FCE Zaria where the final review workshops for the new Minimum Standards for NCE and Pre-NCE programmes were held.

The production of these new Minimum Standards documents would not have been possible without the assistance of TET fund. This intervention is very much appreciated.

Finally, I appreciate the efforts of the Federal Government of Nigeria through the Honourable Minister of Education, **Prof. (Mrs.) Ruqayyatu A. Rufa'I, OON** for providing the much needed 'Federal Might' for the transformation of the education sector.

It is my fervent hope that all teacher training institutions for the Basic Education sub-sector will avail themselves with the opportunities offered by this revised **NCE Minimum Standards document.** With the provision of this document, the NCCE would henceforth be guided in its assignment, as the Commission goes round the Colleges of Education to ensure quality delivery and accreditation of our institutions and programmes.



Prof. M. I. Junaid **February, 2013**

Executive Secretary

National Commission for Colleges of Education

ACKNOWLEDGEMENT

The development and publication of this Specialist NCE Minimum Standards Document would not have been possible without the support and contributions of a number of individuals and organizations. The restructuring process, which entails a series of activities including experts meeting, stakeholders' consultative workshop and critique workshops were supported by funds provided by the Federal Government of Nigeria in our regular capital projects. The Department would like to acknowledge the importance of this support.

The Department would also like to acknowledge the contributions of the numerous resource persons who participated at the various stages of the restructuring process, and commend them for job well done. In the same vein, we acknowledge the support of the Provost of the Colleges of Education who either participated personally in the activities that culminated into this edition of the Specialist NCE Minimum Standards or sponsored their staff to make presentations and inputs during the development and critique exercise.

Finally, the Department would like to appreciate the efforts and support of the Management of the Commission under the leadership of the Executive Secretary, Prof. M.I. Junaid who provided us with academic leadership for restructuring and expanding NCE Minimum Standards in line with basic education programmes.

Dr. A.Y. Abdulkareem **February, 2012**

Ag. Director

Academic Programmes Department

NATIONAL COMMISSION FOR COLLEGES OF EDUCATION HEAD OFFICE ABUJA

1.2 MODE OF OPERATION

i. Pre-NCE Programme shall run from July to March of every academic year.

ii. The Colleges must commence and conclude the process of admission into Pre-NCE in line with (i) above

iii. Collages must implement the Pre-NCE Minimum Standards in such a way to allow students sit and pass JAMB UTME and remedy their SSCE ('O' level) deficient subjects.

iv. All Pre-NCE candidates are required to register and attend lectures in the three (3) core subjects of: General Education, General Mathematics and General English

v. In addition to iv above, all candidates are also expected to select two subjects as appropriate to their programme of study.

vi. Colleges should arrange the Pre-NCE programmes in such a way that candidates should register for minimum of 18 credits and maximum of 24 credits per semester

vii. The institutions should guide the Pre-NCE students in filling their **colleges** as the most preferred Institutions in the JAMB form to guarantee retention of students.

viii. Institutions must respect national benchmark on admission into tertiary education. The arts – sciences admission ratio of 30:70 must be strictly followed.

ix. Colleges must make frantic efforts to attract more students into the Pre-NCE programme but strictly in line with their CARRYING CAPACITY.

x. Candidates require CGPA of 1.5 in addition to obtaining scores above the national minimum cut off points in JAMB examinations.

xi. Pre-NCE candidates are to be exempted from Post UTME screening for admission.

xii. Pre-NCE Continuous Assessment and Examinations are to be **internally moderated**. (No more external moderation).

xiii. The entry requirements remain three (3) Credits and two (2) passes.

xiv. The Pre-NCE Programme should be for all the subjects available at the regular NCE level. (Early Childhood Care Education, Primary Education, Adult and Non-Formal Education and Special Education inclusive).

xv. Colleges must guide the candidates on the choice of subjects to be selected for the programmes that are not available in the Pre-NCE Minimum Standards.

xvi. Lecturers are advised to obtain and consult the current JAMB/UTME Syllabus for the details of the content of the courses.

xvii. Colleges must purchase enough copies of JAMB Syllabuses for the UTME and SSCE 'O' level (WAEC, NCEO and NABTEB) for each of the Pre-NCE subjects.

xviii. The table below should guide the Pre-NCE Students on the subjects to be offered for the following programmes that are not captured in the Pre-NCE Minimum Standards

S/N	Programmes	Students should offer two of the following
I	Ecumenics	CRS/ISS and any other Arts Subjects
Ii	Cultural and Creative Arts	FAA and any of other Arts subject
Iii	Social Studies	Any two of Economics, Geography and Political Science
Iv	Theatre Arts	English and any of literature in English/Music
V	Early Childhood Care Education	English and any Basic Education Subject
Vi	Primary Education	English and any Basic Education Subject
Vii	Special Needs Education	English and any Basic Education Subject
Viii	Adult and Non-formal Education	English and any Basic Education Subject
Ix	Computer Education	Mathematics and any other science subject
X	Integrated Science	Biology and any of chemistry/physics

xix. The table below should also guide the Pre-NCE students on the subjects to be offered for the following Vocation and Technical Education Programmes

S/N	Programmes	Students should offer two of the following
I	Business Education	Commerce and any of Economic/Mathematics
Ii	Technical Education	Technical Education and any of the science subject
Iii	Agricultural Education	Agricultural Education and any of Biology/ Home Economics
Iv	Fine and Applied Arts	Any two of Music, literature in English and Technical Education

1.3 FACILITIES

Facilities of the various Departments will continue to be expanded to accommodate the Pre-NCE programme.

1.4 STAFFING

The existing practice to be retained i.e.

a. Department of Pre-NCE with Head/Co-ordinator and supporting staff.

Regular NCE Teachers should be teaching at this level. But workload and teaching experience should be considered.

b. Lecturers should be as qualified as those approved for the regular NCE programme.

1.5 EVALUATION

Continuous Assessment (CA) - 40%
Semester Examination - 60%

1.6 MODALITY FOR MOUNTING PRE-NCE

No NCE awarding Institution may mount the PRE-NCE programme without the express permission of the National Commission for Colleges of Education.

CORE PROGRAMMES

PRE-NCE GENERAL EDUCATION

Course Outline

S/N	Course Code	Course Title	Credits	Status
1	GED 011	The Teacher and the Teaching Profession	1	C
2	GED 021	Principles of Teaching	1	C

Course Description

FIRST SEMESTER

EDU 011 THE TEACHER AND THE TEACHING PROFESSION (1Credit) C

This course focuses on the concept of teaching, who is a teacher, personal attributes and qualities of a good teacher, responsibilities of a teacher, the teacher and the school, the teacher and the community, importance of teaching profession and the great teachers (as perceived by the students and their lecturer).

SECOND SEMESTER

EDU 021 PRINCIPLES OF TEACHING (1Credit) C

The Course deals with the concept of teaching, teacher/professional competencies, mastery of subject matter, physical and health status of the teacher and the students, the teacher and the importance of understanding human nature and development, ICT as a tool for lesson delivery and career prospects in the teaching profession.

GENERAL ENGLISH

First Semester

Course Outline

S/N	COURSE CODE	COURSE TITLE	CREDITS	STATUS
1	GEN 011	Comprehension, summary & Essay	2	C
2	GEN 012	Vocabulary Development I	1	C

Second Semester

S/N	COURSE CODE	COURSE TITLE	CREDITS	STATUS
1	GEN 021	Essay Writing	2	C
2	GEN 022	Vocabulary Development II	1	C

COURSE DESCRIPTION

First Semester

GEN 011 COMPREHENSIONS, SUMMARY & ESSAY (2 CREDITS) C

- Reading comprehension techniques – identification of connotational and denotational meanings of words in context, sentence and paragraph.
- Practice in summary writing

GEN 012 VOCABULARY DEVELOPMENT I (1 CREDIT) C

- Registers – according to subject and user
- Idioms and figurative expressions (in context)
- Synonyms, antonyms, homonyms and polysemy

Second Semester

GEN 021 Essay Writing (2 Credits) C

1. Basic components and structure of an essay
   - Types of essays and their different characteristics, e.g. narrative, descriptive, expository, argumentative, reports etc.
   - Formal and informal letters
2. Passages from literary works of selected authors (see the current JAMB syllabus on use of English)
   - Focus should be on: coherence and logical reasoning
   - Synthesis of ideas
   - Author's opinion, mood, attitude to the subject matter, etc.

GEN 022 VOCABULARY DEVELOPMENT II (1 CREDIT) C

1. Drills in stress and intonation
2. Word formation processes e.g. affixation: suffixes, prefixes
3. Word classes and their functions

GENERAL MATHEMATICS

COURSE OUTLINE

FIRST SEMESTER

S/N	Course Cord	Course outline	Credit	Status
1	GMT 011	Number & Numeration	2	C
3	MAT 012	Pure Mathematics I	1	C
			3	

Second Semester

S/N	Course Cord	Course outline	Credit	Status
1	MAT 021	Statistics, Probability & Calculus	2	C
2	MAT 022	Pure Mathematics II	1	C
			3	

COURSE DESCRIPTION

FIRST SEMESTER

GMT 011 NUMBER AND NUMERATION (2 CREDITS) C

- **Number bases:** Binary numbers, conversion from base 2 to base 10 and vice versa; other number bases e.g. 3, 4, 5, 6, 7, 8 etc
- Fractions, Decimals and Approximations.
- **Indices: Laws** of indices and numbers in standard forms
- Logarithms: Relationship between indices and logarithms e.g.
  $y = 10k \longrightarrow k = \log 10y$; Basic rules of logarithms i.e. $\log 10\ (Pq)$
  $= \log_{10} P + \log_{10} q$; $\log_{10} \frac{P}{q} = \log_{10} P - \log_{10} q$;
  $\text{Log}_{10} + Pn = n \log_{10} P$

- Use of Tables of Logarithms; Base 10 Logarithm and Antilogarithm tables.
- **Surds**: Simplification and Rationalization of simple surds
- **Sequences**: A.Ps. and G.Ps.
- **Sets**: Idea of sets, universal set, finite and infinite sets, subsets, empty sets and disjoint sets, idea of and notation for union, intersection and complement of sets.
- Positive and Negative integers; Rational numbers, the Four basic operations on rational numbers; the number line.
- Ratio, Proportion, Rates and Taxes.
- **Variation**: Direct, inverse Partial and Joint variations.
- **Percentages**: Simple interest, commission, discount, depreciation. Profit and loss, compound interest and hire purchase.

- **Operations**
  - Binary operations - Properties
    - Closure
    - Commutativity
    - Associativity
    - Distributivity
  - The idea of
    - Identity elements
    - Inverse elements.
- **Algebraic expressions:** Expression of statements in symbols;
- Formulating algebraic expression from given situations; Evaluation of algebraic expressions.
- **Simple operations on algebraic expressions**: Expansion and factorization
- **Solution of linear equations**: Linear equations in one variable; simultaneous linear equations in two variables.
- **Change of subject of a formula and relation**:
- **Quadratic Equations**: Solutions of quadratic equations; Formation of quadratic equations with given roots; Application of solution of quadratic equations in practical problems.
- **Graphs of linear and quadratic functions:** Interpretation of graphs, coordinate points, table of values; Drawing quadratic graphs and obtaining roots from graphs; Graphical solution of pairs of equations of the form $y = ax2 + b x + c$ and $y = m x + k$. Drawing quadratic equation graphs and obtaining roots from graphs; Drawing tangents to curves to determine gradient at a given point.
- **Linear Inequalities**: Solution of linear inequalities in one variable and representation on the number line. Graphical solution to linear Inequalities in two variables.
- **Algebraic fractions**: Operations on algebraic fractions:
- **INDICES, LOGARITHMS AND SURDS**
  - Laws of indices
  - Theory of logarithms
  - Relationship between indices and logarithms
  - Use of logarithm tables in calculations
  - Change of base in logarithm

  - Surds of the form a and $a \sqrt{b}$

    $\sqrt{b}$

    Where a is rational and b is a positive integer

    The term of a sequence
  - **ALGEBRAIC EQUATIONS**
  - Solution of quadratic equation using

- Factorization
- Completing the square
- Formula
- Symmetric properties of the roots
  $a + \beta = -\frac{b}{a}$ and $\alpha \beta = \frac{c}{a}$
- Theory of quadratic equation
- Graphical methods

▪ Solution of 2 simultaneous equations where one is linear and the other is quadratic.

GMT 021 STATISTICS, PROBABILITY AND DIFFERENTIATION

(2 Credits) C

- **Statistics**
  - Representation of **data** — frequency distribution, histogram. Bar-charts and pie-charts
  - Measures of Location — mean, median and mode for both ungrouped and grouped data. Cumulative frequency curve, median, quartiles, and percentiles.
  - Measures of dispersion - range, interquartile range, mean deviation, variance and standard deviation.
- **Probability**
  - Permutations and Combinations
  - Experimental and theoretical probability: Including equally likely events e.g. probability of throwing a six with a fair die, or a head ".hen tossing **a fair** coin: use simple sample spaces.
  - Addition of probabilities for mutually exclusive and independent events: **USC** simple sample spaces.
  - Multiplication of probabilities for independent e ents: use simple sample spaces
- **Differentiation**
  - Differentiation of simple explicit algebraic and trigonometric functions
  - **DYNAMIC**
    - Definition of displacement velocity, speed, distance, time and acceleration
    - Composition of:- Constant velocities and variable velocities Relative Velocity
    - Equations of motion

▪ Concepts of mass particle and momentum
  - Newton's laws of motion
  - Conservation of linear momentum

- One to one onto identity and constant mappings
- Composition of mapping.

- **FUNCTIONS**
  - Inverse of a function
  - Circular function
- **MATRICES AND DETERMINANTS**
  - Addition of matrices
  - Scalar multiplication of matrices
  - Multiplication of matrices.
  - Determinant as area and volume in `2' and `3' dimensions respectively
  - Application of determinant to areas of triangles and solution to simultaneous linear equations of unknown.
- **STATICS**
  - Freely failing bodies under gravity, projectiles in one and two dimensions, vertical and horizontal projections only.

- General concepts of statics include forces which are of common occurrence e.g.
  - Resolution of forces
  - Gravitational forces
  - Composition of forces.

- Problems involving resolution and composition of forces

  - Reaction and surface friction
  - moment and equilibrium of forces.
  - Lami's theorem
  - Application of Lami's theorem.

GMT 022 PURE MATHEMATICS II (1 Credit) C

- **PARTIAL FRACTIONS**

  Resolution of rational functions into partial fractions for the following cases.

  - Distinct linear factors in the denominator
  - Repeated linear factors in the denominator
  - Irreducible quadratic expression.
- **LINEAR INEQUALITIES**
  - Graphical solution of simultaneous linear inequalities in two variables
  - Analytical solution of simultaneous linear and quadratic inequalities

- Inequalities involving absolute values.

- **GEOMETRY**
  - Construction of
    - An angle equal to a given angle
    - A line segment divided into a given number of equal parts
    - Triangle and quadrilaterals satisfying certain conditions
  - Relationship between construction and loci
  - Knowledge of the following loci
    - Locus of points equidistant from two lines
    - Locus of points equidistant from two points
    - Locus of points at certain distance from a point
  - Construction of
    - Tangent to a circle from an external point
    - Constant angle locus
    - Construction of locus of point P such as circum-circles, inscribed circles and scribed circles.
- **PLANE GEOMETRY**
  - Deductive proofs of
    - Angle sum of a triangle
    - Parallelograms on the same base and between the same parapets are equal in area
  - Application of skills in deductive reasoning in providing the following riders in Euclidean geometry.
    - Angles at a point
    - Angles on parallel lines
    - Intercept theorem
    - Angles in a polygon
    - Extractor angles
    - Congruent triangles
    - Properties of parallelograms
    - Areas of triangles and parallelograms on the same base and between the same parallel lines are equal
    - Similar triangles.
  - Deductive proofs of
    - The angle which an arc subtends at the centre is twice the angle which it subtends at the remaining part of the circumference
    - Angles on the same segment are equal
  - Proofs of the following riders on Euclidean geometry with respect to circles
    - angles subtended by chords in a circle

- angles subtended by a chord at the centre
- Perpendicular bisectors of chords
- Rectangular property of chords
- Angle between a tangent and a chord
- Two tangents from a point to a circle
- Common tangents to two circles.

- **DIFFERENTIATION AND INTEGRATION**
  - Derivative as a rate of change
  - Differentiation from first principle
  - Differentiation of implicit algebraic circular trigonometric and logarithmic functions
  - Differentiation of exponential functions
  - Determination of second derivatives
  - Differentiation of a function of function.
  - Concept of minimum and maximum of a function
  - Integration as the reverse of differentiation
  - Indefinite integrals solution by:-
    - Substitution
    - Resolution of rational function into partial fractions
    - Parts
  - Definite integral
  - Application of definite integral

ARTS AND SOCIAL SCIENCE EDUCATION

PRE-NCE CHRISTIAN RELIGIOUS STUDIES

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
CRS 011	The Early History of Israel	3	C
CRS O12	The Life and Teachings of Christ	3	C
CRS 013	Early Church History	2	C
		8	C

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
CRS 021	Religion in Society	2	C
CRS 022	Selected Epistles	2	C
CRS 023	Monarchy to the Fall of The Southern Kingdom	2	C
CRS 024	The Division of the Kingdom to the Return from Exile and the Prophets	2	C
		8	C

COURSE DESCRIPTION

FIRST SEMESTER

CRS 011 THE EARLY HISTORY OF ISRAEL (3 CREDITS) C

The course discusses the history of Israel from the call of Abraham to the period of Moses- the Sovereignty of God, the Covenant of God, Leadership qualities (Joseph, Moses, Joshua etc.), Divine providence, Parental responsibility and as contained in the current JAMB/UTME Syllabus.

CRS O12 THE LIFE AND TEACHINGS OF CHRIST (3 CREDITS) C

The course deals with the birth and childhood of Jesus, the preparation for His Ministry- the baptism and temptation etc., the Ministry and the death of Jesus Christ. It also covers the teachings of Jesus Christ and his Disciples which include; Jesus' teachings about Himself, love, fellowship in the early church, the

Holy Spirit and the Mission of the Church, the discipleship, miracles, the parables, Sermon on the Mount, Mission of the Disciples.

CRS 013 EARLY CHURCH HISTORY (2 CREDITS) C

The course gives background to the beginning of the Church as contained in the Acts of the Apostles; it also examines the Church before the day of Pentecost, the Pentecost - Witness in Jerusalem, Judea and Samaria, Opposition to the Gospel Message, Mission to the Gentiles- Paul's missionary Journeys. See the current JAMB/UTME Syllabus for more details.

SECOND SEMESTER

CRS 021 RELIGION IN SOCIETY (2 CREDITS) C

The course examines impact of religion in the society and problems facing the church such as interpersonal relationship among Christians, Christians living among non Christians, Christian attitude to persecution, relationship in the Christian family- sex, morality, marriage and Christian liberty.

CRS 022 SELECTED EPISTLES (2 CREDITS) C

Such Epistles as Romans, Corinthians, Ephesians and Philemon are to be considered under such themes as: Justification by Faith, Sin, Law and Grace, New Life in Christ, Dignity of Labour, Humility, Election, Forgiveness, Propitiation, Sanctification, Righteousness, Love and Spiritual Gifts. See the current JAMB/UTME Sylabus for more details.

CRS 023 MONARCHY TO THE FALL OF THE SOUTHERN KINGDOM (2 CREDITS) C

This course describes the rise of Kingship in Isreal; the reigns of Saul, David, Solomon, Rehoboam and Jeroboam. It also covers the fall of the Northern and Southern Kingdoms.

CRS 024 THE DIVISION OF THE KINGDOM TO THE RETURN FROM EXILE AND THE PROPHETS (2 CREDITS) C

The course deals with themes such as Greed and its Effects, the Supremacy of God, Religious Reforms in Judea, Concern for Judah, Faith in God, God's Message to Nineveh, Social Justice, true religion and Divine Law, Holiness and Divine Call, Punishment and Hope. See the current JAMB/UTME Syllabus for more details.

PRE-NCE ISLAMIC STUDIES

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	TITLE OF COURSE	CREDITS	STATUS
ISS 011	Introduction to the Study of Qur'an	2	C
ISS O12	Introduction to the Study of Hadith	1	C
ISS 013	Fiqh (Islamic Jurisprudence)	3	C
ISS 014	Tarikh (Islamic History)	2	C
		8	**C**

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	UNIT
ISS 021	Textual Studies of the Qur'an	2	C
ISS 022	Textual Studies of the Hadith	1	C
ISS 023	Tahdhib (Islamic Moral Teachings	3	C
ISS 024	Islamic Economic and Political Systems	2	C
		8	**C**

COURSE DESCRIPTION

1ST SEMESTER

ISS 011 INTRODUCTION TO THE STUDY OF QUR'AN (2 CREDITS) C

This course of study deals with the introductory aspects of the Holy Qura'n which include:

- Definition of the Qur'an
- Revelation and complete arrangement of the Qur'an
- Significance of the Qur'an to humanity
- The role played by the Companions of the Prophet (SAW) in the preservation of the Glorious Quran
- Proof of the Divine authenticity of the Glorious Quran.
- Collection, compilation and standardisation of the Qur'an
- The nature and differences between Makkah and Madinan Suwar
- Uniqueness of the Holy Qur'an

- Moral lessons of the Glorious Quran

ISS 012 INTRODUCTION TO THE STUDY OF HADITH (1 CREDIT) C

This course of study deals with the definition and historical origin of Hadith, especially:

- Contents and importance of Had ith;
- The collection and compilation of Hadith;
- Criteria for testing the authenticity of Hadith
- The six sound collections of Hadith;
- The relationship between Hadith and the Glorious Quran;
- The classification of Hadith;
- Muwatta and its author- the biography of Imam Malik and the study of his
- book
- Hadith as a source of Shari'ah (Islamic Law)1

ISS 013 FIQH ISLAMIC (JURISPRUDENCE) (3 CREDITS) C

This course deals with rituals and principles of Islam:
Specifically course should include the following:

- Faith (Kalimatush-Shahadah:meaning and importance)
- Shrik (beliefs and practices that are incompatible with the Islamic principles of Tawhid)
- Taharah (Purification)
- Ablution, Things that vitiate Ablution
- Tayammum and things that viate - Tayammum
- Al- Ghusl (ritual bath)
- The spiritual and moral objectives of the above mentioned rituals
- The six articles of faith(Belief in Allah, Belief in His Angels, His Books, Prophets and the the Last Day)
- The five principles of Islam viz:- Belief in Allah, As-salat, Sawm,
- Zakkat, and Hajj
- Definition of Marriage (An-Nikah)
- Constituents of Marriage
- Prohibited spouses in Marriage
- Divorce (Talaq)
- Types of Divorce
- Inheritance (Mirath)
- Will (Wasiyyah)

The course also deals with the sources and schools of law in Islam. See the current JAMB/UTME Syllabus for more details.

ISS 014 TARIKH (ISLAMIC HISTORY) (2 CREDITS) C

This course deals with the definition of Pre-Islamic Arabia. The early life of the prophet of Islam, the first Da'wah (call), Hijrah and its significance, the farewell sermon and the contributions of the four rightly guided caliphs to the spread of Islam. The course also focuses on the early contact of Islam with Africa, the Impact of Islam in West Africa, and Contributions of Islam to Education.

2ND SEMESTER

ISS 021 TEXTUAL STUDIES OF THE QUR'AN (2 CREDITS) C

In this course, the students are expected to study the text, Transliteration, translation and teachings contained in certain selected surahs/ayats.These include: Suratul Fatihah, Ma'un, Kawthar, Al-Adiyat, Ikhlas, Falaq, Al-Qari'ah, Al-Takathur, Al-Asr, Al-Humazah, Al-Masad, Al-Alaq, Al-Qadr,Al Bayyinah, Al-Zilzal, Ayatul-Kursiy, Laqad jaakun and Nas. The course focuses on Tafsir-its origin, importance and types.

ISS 022 TEXTUAL STUDIES OF THE HADITH (1 CREDIT) C

In this course the students are expected to study the text, transliteration, translation and teachings contained in certain selected Hadith from Al-Nawawi's collection 1,3, 5,6,7,9, 10,11, 12,13, 15, 16, 18,19,21,22,25,27,34 and 41. It also includes the moral lessons in the hadith.

ISS 023 TAHDHIB (ISLAMIC MORAL TEACHINGS (3 CREDITS)C

- The concept of morality in Islam
- Virtuos Habits in Islam viz:Honesty in words and deeds (Qur'an 2:42, 61:23
- Modesty of dressing in Islam (Qur'an 24:30-31,24:27, 31
- Good leadership and justice (Qur'an *4:135)*
- Piety (Qur'an 2:177), Trust and obligations, Tolerance, perseverance and patience
- Good relationship between Muslims and Christians (Muslim -Christian Relationship).
- Goodness to parents
- Dignity of labour
- Unity and brotherhood
- Immoral Actions and Behaviours to be shun away from (Qur'an 2:188)-Bribery and Corruption (Qur'an 2:2 19, 4:43), Adultery and Fornication,
- Arrogance and Extravagancy (Qur'an 17:32), Stealing and Fraud (Qur'an *5:38,* 2:188**,** *85:1-5)*

ISS 024 ISLAMIC ECONOMIC AND POLITICAL SYSTEMS (2 CREDITS)C

This course deals with Islamic economic systems such as Islamic attitude to Riba, Al tatfif, hoarding (ihtikar), Islamic sources of revenue (Zakah, Jizyah, kharaj and Ghanimah), Baitul.mal and the difference between the Islamic economic system and the Western economic system. It also includes Islamic political system- the concepts of shurah, adala,and masuliya, rights of non-muslims in an Islamic State and the difference between the Islamic political system and the Western political system.

PRE-NCE HISTORY

COURSE OUTLINE

1ST SEMESTER

COURSE CODE	TITLE OF COURSE	CREDITS	STATUS
HIS 011	Nigeria from Beginning to 1800	3	C
HIS O12	Nigeria from 1800- 1900	2	C
HIS 013	West and North Africa Since 1800	2	C
HIS 014	Eastern and Southern Africa	1	C
		8	**C**

2ND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	UNIT
HIS 021	Nigeria from 1900 to 1960	2	C
HIS 022	Nigeria since Independence	3	C
HIS 023	Africa and the Wider World since 1900	3	C
		8	**C**

COURSE DESCRIPTION

FIRST SEMESTER

HIS 011 NIGERIA FROM BEGINNING TO 1800 (3 CREDITS)C

The course focuses on the land and peoples of Nigeria. It aims at affording an appreciation of the development process that took place from the earliest time, ie. the people and their cultures from the Stone Age through to the development of state systems, origin and development of Nigerian states and societies, economic activities, external influences (Europeans & Arabs). The course also reflects on developments and inter-relations between the Nigerian peoples and the outside world. Emphasis here is on the nature, pattern and effect of the Slave Trade.

HIS 012 NIGERIA FROM 1800- 1900 (2 CREDITS)C

The course focuses on transformations in the Nigeria including Hausa land, Borno, Yorubaland, Benin, and the Delta region, etc. Emphasis is here placed on religious, political, economic and social changes. The abolition of the slave trade

and the changes brought about internally and in relation with West European countries with focus on the British conquest of Nigeria.

HIS 013 WEST AND NORTH AFRICA SINCE 1800 (2 CREDITS)C

Islamic reform movements and state building in West Africa, Christian missionary activities in West Africa, Egypt under Mohammed Ali and Khedive Ismail, the Maghrib and European Incursion, the Mahdi and Mahdiyya Movement in the Sudan etc.

HIS 014 EASTERN AND SOUTHERN AFRICA (1 CREDIT)C

The Omani Empire, Buganda in the 19th Century, Ethiopia in the 19th century, the Mfecane, the Great Trek. See the current JAMB/UTME Syllabus for more details.

SECOND SEMESTER

HIS 021 NIGERIA FROM 1900 TO 1960 (2 CREDITS)C

The establishment of colonial administration up to 1914. Amalgamation of 1914 - Reasons and effects. Colonial Administration after the amalgamation. The Colonial Economy. Social Development under the Colonial Rule, Nationalism and Constitutional development.

HIS 022 NIGERIA SINCE INDEPENDENCE (3 CREDITS)C

The course starts up with Government and Politics 1960- 66, The Nigerian Civil War. Military interventions and administrations 1966 – 1999 (from Gowon regime to Abacha regime); 1967 - 1970; Nigerian economy and society; and Nigeria in International Organizations: O.A.U., African Union. ECOWAS. UNO, The Common Wealth Organization of Nations, OPEC and Nigeria's role in conflict resolutions.

HIS 023 AFRICA AND THE WIDER WORLD SINCE 1900 (3 CREDITS)C

The New Imperialism in Africa, the Partition and European Occupation of Africa, Patterns of Colonial rule in Africa, Nationalist Movement in Africa, Politics of decolonization, Apartheid and Problems of National Building in Africa, Military Intervention in African Politics. See the current JAMB/UTME Syllabus for more details.

PRE-NCE MUSIC

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	TITLE OF COURSE	CREDITS	STATUS
MUS 011	Rudiments of Music	1	C
MUSO12	Elementary Harmony	2	C
MUS 013	Introduction to the History and Literature of African Music	3	C
MUS 014	Introduction to the History and Literature of Western Music	2	C
		8	**C**

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	UNIT
MUS 021	Applied Music	3	C
MUS 022	Ear-Training & Sight Singing	2	C
MUS 023	Comparative Music Studies	3	C
		8	**C**

COURSE DESCRIPTION

FIRST SEMESTER

MUS 011 RUDIMENTS OF MUSIC (1 CREDIT) C

The course content focuses on the staff, music notes/rests and their corresponding value, time/time signature, A-key signatures and scales, keyboard setting and enharmonic equivalents, regonition of diatonic intervals and their inversions, definition of simple music term, abbreviations and expressions.

MUS 012 ELEMENTARY HARMONY (2 CREDITS) C

The course deals with triads and their inversions in major keys, not exceeding two sharps and two flats, basic chord progressions, in four part vocal style (SATB) in major keys not exceeding two sharps and two flats, dominant 7^{th} chord in root position only, kinds of motion, cadences in major keysnot exceeding two sharps and two flats, non-harmonic tones/non-chord tones, modulation, elementary composition.

MUS 013 INTRODUCTION TO THE HISTORY AND LITERATURE OF AFRICAN MUSIC (3 CREDITS) C

The course deals with Nigerian folksongs-types, forms and characteristics, general knowledge of of the features and forms of Nigerian traditional music and dances, Nigerian traditional musical instruments-classifications, knowledge of the lives and music of some African traditional musicians African popular musicians and African art musicians , Evolution and development of African popular music. See the current JAMB/UTME Syllabus for more details.

MUS 014 INTRODUCTION TO THE HISTORY AND LITERATURE OF WESTERN MUSIC (2 CREDITS) C

An overview of musical periods before 1600 to the Baroque period.
Musical periods from classical period to the 20th century Composers- Palestrina, Claudio Monteverdi, Henry Purcell etc., music forms- binary, ternary, rondo, sonata, allegro etc. .

SECOND SEMESTER

MUS 021 APPLIED MUSIC (3 CREDITS) C

Vocal and piano exercises, sight singing to piano exercises, sight singing of short and simple melodies; introduction to piano; primary scale of C,G,D,F and arpeggios, playing of simple pieces from Small Wood tutor and other good piano tutor books, exercise etc.

MUS 022 EAR-TRAINING & SIGHT SINGING (2 CREDITS) C

Clapping, writing of rhymes in four times, recognition of pitches and tonic solfa, introduction of sight singing in C, G, D, F of short melodies etc.

MUS 023 COMPARATIVE MUSIC STUDIES (3 CREDITS) C

An overview of selected Black musicians (composers, performers etc) in the diaspora- Mighty Sparrow, Bob Marley, Steve Wonder, Sean Paul etc., forms to be examined include negro spiritual, gospel music, jazz, rhythms and blues, calypso etc., and the spirit of nationalism in Nigerian music. See the current JAMB/UTME Syllabus for more details.

PRE-NCE ECONOMICS

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	COURSE TITLES	CREDITS	STATUS
ECO 011 ECO 012 ECO 013	Introduction to Economics I Elementary Principles of Economics I Introduction to Mathematics Concepts in Economics.	2 3 3	C C C
		8	**C**

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
ECO 021 ECO 022 ECO 023	Introduction to Economics II Elementary Principles of Economics II Introduction to Public Finance	2 3 3	C C C
		8	**C**

COURSE DESCRIPTION

FIRST SEMESTER

ECO 011 INTRODUCTION TO ECONOMICS 1 (2 CREDITS) C

Definition, nature and scope of economic concept of wants, scarcity, scale of preference , choice and opportunity cost Production: meaning factors and types. Cost and revenue concepts; total costs, average cost, marginal cost, total revenue, short and long run costs. Forms of business organizations. Agriculture: Types and practice. The role of agriculture in national development Problems of agriculture. in Nigeria

ECO 012 ELEMENTARY PRINCIPLES OF ECONOMICS I (3 CREDITS)C

Elementary theories of demand and supply - definitions. Changes in demand and supply change in quantity demanded and supplied. Determination of equilibrium price and quantity. The Concepts of elasticities of demand and supply. Application and implications of these concepts.

ECO 013 INTRODUCTION TO MATHEMATICS CONCEPTS IN ECONOMICS (3 CREDITS) C

Basic statistical tools for elementary analysis - statistical tables, graphs, charts, frequency distributions; Measures of central tendency - mean, median and mode. Measures of dispersion - variance, range, mean deviation and standard deviation

(**NOTE**: Emphasis should be on ungrouped data).
Simple and simultaneous algebraic equations related to Economics Techniques of differentiating and integrating simple algebraic, logarithmic and exponential functions and their applications to Economics.

SECOND SEMESTER

ECO 021 INTRODUCTION TO ECONOMICS II (2 CREDITS) C

Location and localization of industries in economic development. Distribution and marketing of commodities. The functions of retailers and wholesalers. Concept of markets, types (perfect and imperfect). Types of financial institutions. Forms and characteristics of money. Basic functions of' money. Inflation. International Trade.

ECO 022 ELEMENTARY PRINCIPLES OF ECONOMICS II (3 CREDITS) C

Factors that affect the size of the population. Population problems; geographical, occupational and age distribution of the population. Population workforce in Nigeria. Labour Economics; Labour Unions in Nigeria. Mobility of Labour (causes and effects), factors affecting wage determination in Nigeria.

ECO 023 INTRODUCTION TO PUBLIC FINANCE (3 CREDITS) C

The nature, scope and methodology of Public Finance. Comparison of government with business firms. Sources of business and public finance. Concepts of taxation: types, advantages and disadvantages. Fiscal policy Budget.

COMMERCE

COURSE OUTLINE

First Semester

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	UNIT
1	COM 011	Introduction to Commerce	2	C
2	COM 012	Aids To Trade	2	C
3	COM 013	Introduction to Business Studies	2	C
4	COM 014	Business Management	2	C
			8	**C**

Second Semester

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	UNIT
1	COM 021	Legal Aspect of Business	2	C
2	COM 022	Introduction to Marketing	2	C
3	COM 023	Principles of Account	2	
4	COM 024	Types of Account	2	**C**
			8	**C**

COURSE DESCRIPTION
First Semester

COM 011 Introduction to Commerce (2 Credits) C

- **Commerce**
  - Meaning
  - Functions
- **Occupation**
  - Meaning
  - Types (Industrial, Commercial and Services)
- **Production**
  - Meaning
  - Factors, characteristics and rewards (land, labour, capital and entrepreneur)
  - Division of Labour
  - Specialization
  - Types of Production (primary, secondary and tertiary)
- **Purchase and Sales of Goods**
  - Procedure and documentation (enquiry, quotation, order, invoice, proforma invoice, statement of accounts, bill of lading, certificate of origin, consignment note, etc.)
  - Terms of trade (Trade discount, quantity discount, cash discount, warranties, C.O.D., C.I.F., F.O.B., and E.O.E.)
  - Terms of payments

- Cash – Legal tender
- Credit: Meaning, types and functions, merits and demerits

-

COM 012 Trade (2 Credits) C

- Meaning,
- Classification

- Home Trade
  - Retail
    - Types of retailers
    - Functions of retailers trends in retailing (branding, self service, vending machines, the use of luncheon and fuel vouchers)
    - Advantages and disadvantages of retailers
  - Wholesale trade
    - Types of wholesalers (merchant, agent and general)
    - Functions of wholesalers
    - Advantages and disadvantages of wholesalers
  - Foreign trade
    - Basic issues in foreign trade (balance of trade visible and invisible, balance of payments and counter trade)
    - Procedures and documents used in export, import and entrepot trade
    - Barriers to international trade
- Aids to Trade
  - Advertising
    - Types of media
    - Advantages and disadvantages
  - Banking
    - Types of banks
    - Services
    - Challenges
  - Insurance
    - Types
    - Principles
    - Terms
    - Benefits
  - Tourism
    - Terms
    - Benefits
    - Challenges
  - Transportation
    - Importance
    - Forms/mode
    - Advantages and disadvantages
    - Regulatory agencies
  - Warehousing

- Importance
- Types
- Function
- Location

COM 013 Introduction to Business Studies (2 Credits) C

- Business Units
  - Forms of ownership
  - Characteristics/features
  - Registration of businesses
  - Business Mergers
  - Determination of choice of business units
  - Dissolution and liquidation of businesses

- **Financing Business**
  - Sources of finance (personal saving, sale of shares and bonds, loans, debentures, mortgage, bank overdraft, ploughing back to profit, credit purchase, leasing
  - Problems of sourcing finance
  - Types of capital (share capital, capital owned, authorized (registered or nominal) capital issued capital, called-up capital, paid-up capital, liquid capital, working capital and owners' equity)
  - Calculation of forms of capital, profits (gross and net) and turnover
  - Bureau de change

a. Money
   - Evolution
   - Forms
   - Qualities/characteristics
   - functions

b. Stock Exchange
   - Importance and functions
   - Procedure of transactions and speculations
   - Types of securities (stocks, shares, bonds, debentures, etc)
   - Second-tier securities market (STSM), listing requirements, types of companies for the market, advantages and operating regulations of the market

COM 014 Business Management (2 Credits) C

- Elements of business Management
  - Functions (planning, organising, staffing, coordinating, motivating, communicating and controlling)
  - Principles (span of control, unity of command, delegation of authority, etc.)
  - Organizational structure (line, line and staff, functional, matrix and committee)
  - Functional areas of business (production, marketing, finance and personnel)
- **Communication**
  - Process

- Types
- Trends
- Merits and demerits
- Barriers

- Information and Communication Technology(ICT)

i) Computer

- Appreciation/application
- Types
- Functions
- Advantages and disadvantages
- challenges

ii) terms (Internet, intranet, browsing, password, e-mail, Google, yahoo, search, cyber café, local area network etc.)

iii) Activities

- E-commerce
- E-banking
- E-business

SECOND SEMESTER

COM 021 Legal Aspect of Business (2 Credits) C

- **Legal aspects of business**
  - Meaning and validity of a simple contract
  - Contract agency, sale of Goods Acts and hire Purchase Act
  - Rights and obligations of employer and employee
  - Government regulation of business – registration of business, patents, trademarks and copyrights
  - Consumer protection – need for, and means of protection (Government legislation, foods and Drugs, Act, Standards Organization Act, Trade Descriptions Act, Consumer Association, Consumer Protection Council, NAFDAC, NDLEA, customs and Excise etc.)

- **Trade Association**
  - Objectives and function of trade associations (e.g. cocoa farmers' association, Garri sellers' association, Poultry Farmers' Association)
  - Objectives and function of consumers association (e.g. thrift, credit and loans)
  - Objectives and functions of chambers of Commerce (e.g. NACCIMA)

COM 022 Introduction to Marketing (2 Credits) C

- **Elements of Marketing**
  - Functions and importance
  - The marketing, customer satisfaction and integrated marketing)
  - Marketing mix (product, price, place and promotion)
  - Market segmentation
  - Customer service

- Business Environment and Social Responsibility
  - Legal, political, economic, social, cultural, technological, environment, etc.
  - Safe products, philanthropic and social environment and societal consideration
  - Types of pollution (water, air and land) and their implications.

COM 023 Principle of Accounting (2 Credits) C

- **Nature and Scope of Accounting**
  - Differences between accounting and bookkeeping i.e. concepts and conventions of accounting (nature, relevance and application)
  - Objectives of accounting information
  - Accounting needs for investors, professionals and governments
- **Principles of Double Entry**
  - Functions of source documents
  - The books of original entry
  - The ledger and its classifications
  - Nature of transactions (cash and credit)
  - Posting by means of double entry
  - Balancing of ledger account
  - The trial balance, types of errors and their corrections

- **Cash Book**
  - Petty cash book and the imprest system
  - Columnar cash book
  - Trade and cash discount
- **Bank Transactions and reconciliation statements**
  - Nature and instruments of bank transactions
  - Causes of discrepancies between cash book and bank statement
  - Bank reconciliation statements
- **Preparation of Final Accounts of a Sole Trader**
  - Classification of Capital and revenue expenditure
  - Trading and profit and loss account
  - Balance sheet

COM 024 Types of Accounting (2 Credits) C

- Manufacturing Account
  - Apportionment and classification of costs
  - Preparation of manufacturing account
- Partnership Accounts
  - Formation of partnership
  - Nature and forms of partnership accounts
  - Profit and loss appropriation accounts
  - Partners current and capital accounts
  - Treatment of goodwill
  - Admission and retirement of partners

- Revaluation of assets
- Dissolution of a partnership

- Departmental Accounts
  - Objectives
  - Basis of apportionments
  - Trading, profit and loss account
- Branch Accounts
  - Objectives
  - Branch current account
  - Head office current account
  - Reconciliation of account between head office and branch
- Public Sector Accounting
  - Objectives of public sector accounting
  - Differences between public sector accounting and commercial
  - Sources of government revenue
  - Capital and recurrent expenditure
  - Government accounts
  - Key officers involved in public sector accounting and their functions
  - Functions of Treasury department
  - Instrument of financial regulations

PRE-NCE GEOGRAPHY

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	TITLE OF COURSE	CREDITS	STATUS
GEO 011	Regional Geography of Nigeria	2	C
GEO 012	Elements of Physical Geography I	3	C
GEO 013	Human Geography I	3	C
		8	**C**

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
GEO 021	Regional Geography of West Africa and the Rest of Africa	2	C
GEO 022	Elements of Physical Geography II	2	C
GEO 023	Human Geography II	2	C
GEO 024	Practical Geography	2	C
		8	**C**

COURSE DESCRIPTION

FIRST SEMESTER

GEO 011 REGIONAL GEOGRAPHY OF NIGERIA (2 CREDITS) C

- Nigeria - Location, Size, Population, political division and physical setting.
- Relief and drainage; climate, soil and vegetation
- Resources and Economic Activities: Natural and Human Resources,
- Manufacturing Industries, Agriculture and Inter Regional Trade.
- Transportation and trade: Road, Railway, Air and Water. Compare the
- Nigerian situation with other countries.
- Settlement: Pattern and factors of location
- Geographical regions of Nigeria

GEO 012 ELEMENTS OF PHYSICAL GEOGRAPHY I (3 CREDITS) C

- The Earth in relation to the Sun - Latitude, Longitude, Location & time
- Position and seasonal changes
- Structure of the earth, shape and size, internal and external structures
- Types and characteristics of rocks; modes of formation and uses of rocks
- Land forms-processes, earth movements, modifying agents. types of land forms associated with the processes and the agents

- Water bodies-oceans and sea, ocean currents(types, distribution and currents), lakes-types, distribution and uses.

GEO 013 HUMAN GEOGRAPHY I (3 CREDITS) C

- Population-World Population with peculiar reference to the Amazon Basin, N.E., USA, India, Japan and the west coast of Southern Africa
- Population characteristics
- Factors and patterns of Population Distribution
- Factors and problems of population growth
- Settlement with particular reference to Western Europe, Middle East and West Africa
- Types and patterns of Settlement (Rural and Urban, Disperse, Nucleated and Linear)
- Factors affecting the growth and size of settlement (urban and rural).

SECOND SEMESTER

GEO O2I REGIONAL GEOGRAPHY OF WEST AFRICA AND THE REST OF AFRICA (2 CREDITS) C

- Location, size and population
- Natural environment:- Relief, climate, vegetation and rainfall
- Distribution of major minerals
- Lumbering in equatorial Africa
- Irrigation agriculture in the Nile and Niger Basin
- Plantation agriculture in West and East Africa
- Fruit farming in the Mediterranean Regions of Africa
- Mineral exploitation
- Population distribution in West Africa
- International economic cooperation in West Africa e.g. ECOWAS

GEO 022 ELEMENTS OF PHYSICAL GEOGRAPHY II (2 CREDITS) C

Weather, climate and vegetation.

- Soils-definitions and properties, factors and processes of formation, soil profiles etc.
- Environmental resources- types of resources, concept of renewable and non-renewable resources
- Environmental Interactions- land ecosystem, environmental balance and human interaction
- Environmental hazards: soil erosion, drought, desert encroachment, deforestation, coastal erosion, flooding, pollution, etc. causes, effects and prevention

GEO 023 HUMAN GEOGRAPHY II (2 CREDITS) C

Types of economic activities (primary, secondary and tertiary)

- Manufacturing industries: Types of manufacturing industries, factors of industrial location, problems of manufacturing industries and roles of industries in the Economic Development of Tropical Africa.

- Transport and communication-types, roles in economic development etc. World trade factors and patterns of world trade; major commodities (origin, routes and destinations)

GEO 024 PRACTICAL GEOGRAPHY (2 CREDITS) C

- Scale: meaning and types
- Uses of Scale:
  - Measurement of distances and areas
  - Map reduction and enlargement
- Map and types of maps
- Marginal information on maps
- Direction: Cardinal points, bearing and Grid references
- Contour and contour maps
- Cross profile and intervisibility
- Map interpretation: Relief, settlement, drainage and communication system on the map.
  Interpretation of statistical data, maps and diagrams Elementary surveying.

  Note: See current JAMB/UTME Syllabus for more details.

PRE-NCE POLITICAL SCIENCE

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	TITLE OF COURSE	CREDITS	STATUS
POL 011	Introduction to Political Science	3	C
POL O12	Nigerian Government and Politics (Pre-Colonial - 1960)	3	C
POL 013	Politics in Post –Independence Nigeria I	2	C
		8	**C**

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
POL 021	Principles of Political Science	3	C
POL 022	Politics in Post –Independence Nigeria II	2	C
POL 023	Nigeria and International Relations	3	C
		8	**C**

COURSE DESCRIPTION

FIRST SEMESTER

POL 011 INTRODUCTION TO POLITICAL SCIENCE (3 Credits) C

Definition of Basic Concepts in Political Science e.g. State, Nation, Power, Authority, Influence, Legitimacy, Sovereignty, Democracy, Constitution, Government and its organs. Other concepts should include, systems of government - Presidential and Parliamentary, Arms of Government- the Legislature, the Executive, and the Judiciary, Structures of Government: Unitary, Federal, Confederal. Forms of government-Monarchy, Aristocracy, Oligarchy, Autocracy, Democracy, and Political Ideologies- Communisim, Feudalism, Capitalism, Communalism, Socialism and Fascism

.

POL 012 NIGERIAN GOVERNMENT AND POLITICS (PRE-COLONIAL -1960) (3CREDITS) C

This should cover Pre-Colonial Politics- System/structure of governance among the Tiv, Hausa, Kanem-Bornu, Igbo and Yoruba, British conquest and rule in Nigeria (process of acquisition, administrative policy, and impact of the rule), Comparison of British and French colonial administration, Nationalist Movements, Influence of External factors, Constitutional Development from 1922 - 1960.

POL 013 POLITICS IN POST –INDEPENDENCE NIGERIA I (2CREDITS) C

Post- independence Constitutions-1963,1979,1989 and 1999,Objectives and Functions of Public Commissions established by the 1979 and subsequent Constitutions (The Civil Service Commission, Public Complaints Commission, Electoral Commissions, EFFC, ICPC, SERVICOM etc, Political Parties and Party Politics in Post Independence.

SECOND SEMESTER

POL 021 PRINCIPLES OF POLITICAL SCIENCE (3CREDITS) C

The following principles of Political Science are examined: Citizenship, Fundamental Human Rights, Rule of Law; Representative Government, Delegated Legislation, Political Parties and Pressure Groups, Elections and Electoral Processes, Public opinion.

POL 022 POLITICS IN POST –INDEPENDENCE NIGERIA II (2CREDITS) C

This course covers the Structure and Workings of Nigerian Federalism, Public Corporations and Parastatals, Local Government Administration prior to 1979, Features of Local Government Reforms (1976 & 1989), Traditional Rulers and Local Governments, the Military in Nigerian Politics (factors leading to intervention, structure of military regimes and impact of the rule), Ethnicity and Corruption in Nigerian Politics, Problems of building a democratic polity in Nigeria, and the National Question.

POL 023 NIGERIA AND INTERNATIONAL RELATIONS (3CREDITS) C

This course discusses the Concept of Foreign Policy; its purpose and determining factors, Relations with Major Powers, Relations with African Countries, NEPAD (origin, objectives and implications). It also focuses on Nigeria in International Organizations; UNO, The Commonwealth, AU or African Union, ECOWAS, OPEC, as well as the origin, objectives, structure, functions, problems and prospects of these organisations.

LANGUAGE EDUCATION

PRE-NCE ARABIC

COURSE OUTLINE

FIRST SEMESTER

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	STATUS
1	ARB 011	Introduction to Arabic Language	2	C
2	ARB 012	Introduction to Oral Arabic	2	C
3	ARB 013	Introduction to Arabic Literature	2	C
4	ARB 014	Introduction to Arabic Grammar	2	C
			8	**C**

SECOND SEMESTER

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	STATUS
1	ARB 021	Arabic Usage	2	C
2	ARB 022	Arabic Composition	2	C
3	ARB 023	Arabic Literature In Islamic/Modern Period	2	C
4	ARB 024	Basic Arabic Grammar	2	C
			8	**C**

COURSE DESCRIPTION
FIRST SEMESTER

ARB 011 INTRODUCTION TO ARABIC LANGUAGE (2 Credits) C

a) Introduction to Arabic Alphabets
b) Different shapes of Arabic letters
c) Vowel marks (short and Long)
d) Arabic numbers
e) Sun and Moon letters
f) Nunation and Dictation

ARB 012 INTRODUCTION TO ORAL ARABIC (2 Credits) C

a) Greetings in Arabic Language
b) Oral expressions and Verbal Discussion
c) Simple and short conversation
d) Essay writing

ARB 013 INTRODUCTION TO ARABIC LITERATURE (2 Credits) C

a) Brief note on Arabs and Arabic Language in Pre-Islamic period
b) Arabic Literature in Pre-Islamic period i.e. definition, classification
c) أمرأ الفيس ابن ساعدة وزهير بن أبى سلمىٰ وغيرهم من أصحاب المعلقات

ARB 014 INTRODUCTION TO ARABIC GRAMMAR (2 Credits) C

a) Noun, its characteristics and classification e.g. Singular, Dual and Plural
b) Verb and its types: Maadi, Mudaari'u, 'Amr.
c) Prepositions and separable and inseparable pronouns

SECOND SEMESTER

ARB 021 ARABIC USAGE (2 Credits) C

a) Punctuation marks and their usages
b) Hamzatul wasl and Qat'i
c) Arabic usage from global perspective
d) Arabic language in Nigeria

ARB 022 ARABIC COMPOSITION (2 Credits) C

a) Selected topics on Arabic Language and scholars of Arabic Language in Nigeria
b) Simple translation on selected words, phrases and sentences from Arabic to English and Vice versa
c) Drills on Simple Arabic composition

ARB 023 ARABIC LITERATURE IN ISLAMIC/MODERN PERIODS (2 Credits) C

a) Arabic Literature in Islamic period e.g. (المتنبى، الحجاج بن يوسف)
b) Arabic literature in the modern period e.g
المنفلوطى وكتابه العبرات، أحمد شوقي وقصيدة "الثعلب والديك"
c) West African Literature in Arabic e.g.
عبد الله بن فوديو وكتابه "تزيين الورقات، مسعود عبد الغني االدبيايو (مسرحيية استاذ رغم الغه)

ARB 024 BASIC ARABIC GRAMMAR (2 Credits) C

a) Nouns indicative e.g. الفاعل – المبتدأ والخبر
b) Nouns subjective e.g. المفعولات والحال
c) Appendants e.g. النعت – العطف – التوكيد
d) أسماء الإشارة والموصولة واسم الآلة والتفضيل والرمان والمكان
e) المشتقات المضاف والمضاف إليه والعدد

ENGLISH LANGUAGE

COURSE OUTLINE

First Semester

S/N	COURSE CODE	COURSE TITLE	CREDITS	STATUS
1	ENG 011	Listening comprehension	2	C
2	ENG 012	Reading Comprehension and Summary writing	3	C
3	ENG 013	Basic Grammar	3	C
		Total	**8**	**C**

Second Semester

S/N	COURSE CODE	COURSE TITLE	CREDITS	STATUS
1	ENG 021	Speech Work	2	C
2	ENG 022	Essay Writing	3	C
3	ENG 023	Vocabulary Development, Lexis and Structure	3	C
		Total	**8**	**C**

COURSE DESCRIPTION
FIRST SEMESTER

ENG 011 Listening Comprehension (2 Credits) C

- The concept of listening
- Techniques of listening
- Articulation of English sounds
- Word-stress and its effects on pronunciation
- Rhythm comprehension
- Ear training
- Cultivating good listening habit
- Listening for Appreciation/Evaluation

ENG 012 Reading Comprehension and Summary Writing (3 Credits) C

- Basic Reading Skills (eye fixation, word recognition, eye span, etc.)
- Technique of fasting Reading
- Reading comprehension technique – identification of connotational and denotational meaning of word in the context, sentence and paragraph

- Types of reading as in extensive and intensive reading
- Practice in summary writing
    - Technique of summary
- What are to be considered
    - Paragraphing (main idea of the paragraph
    - Contextual meaning/Dictionary meaning

ENG 013 Basic Grammar (3 Credits) C

- Parts of speech major features of noun, pronouns, verbs, adjective, adverb, proposition, conjunction, interjection
- Problem areas of some parts of speech:
    - Nouns – number and concord- Article
    - Pronouns – Agreement between pronoun and antecedents
    - Verb – tense
    - Preposition
- Simple sentence analysis (subject, verb, object complement, identifying parts of the sentence, indirect and reported speech

SECOND SEMESTER

ENG 021 Speech Work (2 Credits) C

- Articulation of consonants and vowels
    - Drills in both consonants and vowels
    -
- Definition of stress intonation and rhythm; Drills in stress, intonation and rhythm
- Simple dialogues, use of models e.g. broadcasters.
- Oral drills based on mimicry, dialogues and film shows
- Identification of Minimal pains/set drills in syllable – initial, medial and final position.

ENG 022 Essay Writing (3 Credits) C

- Basic components and structure of an Essay
- Types of essay and identify their characteristic e.g.
    - Narrative
    - Description
    - Expository
    - Argumentative
    - Report writing
- Formal and informal letter writing

ENG 023 Vocabulary Development and Lexis and Structures (3 Credits) C

- Registers – according to subject and user
- Idioms and figurative expression (in context)
- Synonyms, antonyms, homonyms, hyponyms and polysemy
- Morphonology and syntax (word formation processes e.g. affixation
- Definition of lexis and structure
- Activity on lexis and structure to be emphasize

PRE-NCE LITERATURE IN ENGLISH

COURSE OUTLINE

First Semester

S/N	Course Code	Course Title	Credits	Status
	LIT 011	Introductory to Literature	2	C
	LIT 012	Poetry I	2	C
	LIT 013	Prose I	2	C
	LIT 014	Drama I	2	C
			8	C

Second semester

S/N	Course Code	Course Title	Credits	Status
	LIT 021	Poetry II	2	C
	LIT 022	Prose II	3	C
	LIT 023	Drama II	3	C
			8	C

Course Description

LIT 011 Introductory to Literature (2 Credits) C

- Definition of Literature
- Nature and Function of Literature
- Relationship between form and content
- Similarities and Differences between Drama, Prose and Poetry
- Practical exercise in literature appreciation

LIT 012 Poetry I (2 Credits) C

a) Types of Poetry

- Sonnet
- Ode
- Lyrics
- Elegy
- Ballad
- Panegyric
- Epic
- Blank Verse

b) Poetic Devices

- Structure

- Imagery
- Rhyme/Rhythm
- Diction (choice of words/Language use)
- Persona

LIT 013 Prose I (2 Credits) C

a) Types of Prose
   i) Fiction
   - Novel
   - Novella
   - Short Story
   ii) Non-Fiction
   - Biography
   - Autobiography
   - Memoir

LIT 014 Drama I (2 Credits) C

a) Types of Drama
   i) Tragedy
   ii) Comedy
   iii) Tragicomedy
   iv) Melodrama
   v) Force

Second Semester

LIT 021 Poetry II (2 Credits) C

a) Poetic Appreciation
   i) Thematic Pre-occupation
   ii) Socio – political relevance
b) General Literature Principal

- Literary terms
  Fore-shadowing, Suspense, Theatre, Monologue, Dialogue, Soliloquy, Symbolism, Protagonist, Antagonist, Figure of speech, Satire, Streams of Consciousness etc.
- Relationship between Literary terms and principles

LIT 022 Prose II (2 Credits) C

a) Narrative Techniques/Devices

i) Point of view
- Omniscient/Third Person
- First Person
ii) Setting
- Temporal
- Spatial/Geographical
iii) Characterization
- Round Characters
- Flat Character
iv) Language Use

b) Textual Analysis
i) Theme
ii) Plot
iii) Socio-Political Context

LIT 023 Drama II (2 Credits) C

a) Interpretation of the prescribed texts
i) Theme
ii) Plot
iii) Socio Political Context

Note: Lecturers are to consult the content of JAMB syllabuses for the UTME for the recommended texts for poetry, prose and Drama in their teaching.

PRE-NCE FRENCH

COURSE OUTLINE

First Semester

SN	Course Code	Course Title	Credits	Status
1	FRE 011	Oral Expression & Comprehension	2	C
2	FRE 012	Grammar	2	C
3	FRE 013	Written Expression & Comprehension	2	C
4	FRE 014	Civilisation	2	C
		Total	**8**	

Second Semester

SN	Course Code	Course Title	Credits	Status
1	FRE 021	Written Expression & Comprehension	2	C
2	FRE 022	Grammar II	2	C
3	FRE 023	Written Expression & Comprehension	2	C
4	FRE 024	Civilisation II	2	C
		Total	**8**	
		Grand Total	**16**	

COURSE DESCRIPTION

FIRST SEMESTER

FRE 011 : ORAL EXPRESSION & COMPREHENSION (2 CREDITS) C

- Salutation en français
  i. Saluer quelqu'un
  ii. Prendre congé
- Présentation
  i. Se présenter
  ii. Présenter quelque chose
  iii. Présenter quelqu'un/présenter sa famille
  iv. Identifier quelqu'un/quelque chose
- Demander son chemin
- Décrire quelqu'un
- Décrire quelque chose
- Demander à qui appartient un objet
- Demander à qui appartient une chose
- Exprimer ses gouts
- Parler de ses loisirs
- Dire l'heure
- Parler du temps
- Faire des courses

- Proposer /accepter/ refuser
- Se renseigner
- Les expressions figées/toutes faites: Telles que les proverbes, les idiomes et les structures conventionelles comme realisées dans les actes de paroles: (proverbes:par ex. tel père, tel fils, petit à petit, l'oiseau fait son nid). Les idiomes (par ex. avoir une faim de lou, crier sur le toit, mourir de peur).Expressions conventionelles (par ex.Enchanté, C'est dommage, formidable, Stationnement Interdit etc) Les actes de paroles (par ex. proposer, conseiller, regretter, admirer, esperer, interroger, reprocher, s'accorder etc).

- **Fonctionnement des sons français (Working of French Sounds) :**

(a) La discrimination des sons (par ex. tout/tu)
(b) La correspondence des sons des lettres (par ex. ai-/e/e, ais-/e/)
(c) La syllabification (par ex. con/tente/ment)
(d) La liaison (par ex. trois animaux, cas unique, faux amis,)
(e) Groupes de sens (par ex. J'ai mal à la tête, L'enfant mange, Il va à l'école)
(f) Vrais et faux amis (e.g. president, nation, serious, responsible etc..)
(g) L'identification des sons semblables (e.g maison/saison, dents/don't, fond/fonde, père/paire)

FRE 012 : GRAMMAR (2 CREDITS) C

- Identifier quelque chose
- Décrire quelque chose, quelqu'un
- Demander à qui appartient un projet
- Faire des phrases en utilisant les verbes :
  - Au présent
  - A l'imparfait
  - Au passé composé
  - Au futur
  - Au futur proche et
  - Au conditionnel présent et passé
  - La négation (ne…pas, ne….plus, ne…jamais)
- Utiliser correctement les prépositions dans la phrase

FRE 013: WRITTEN EXPRESSION & COMPREHENSION (2 CREDITS) C

- **Parler de soi** (Le nom, sa nationalité, son travail, ou il habite, ses parents, ses amis/amies son plat préféré etc.
- **Parler des sujets tels que**:
- Le Sida- Syndrome d'imumodéficience Acquise(AIDS) Qu'est-ce que c'est que le SIDA? Quels sont les moyens par lesquels on atteint le sida?
- La Corruption(Curuption): Quelles sont les causes de la corruption? Quelles sont les solutions?
- La vie amoureuse(Love life)
- À propos de la vie et la mortlife (About life and death)
- Le mariage (Marriage): Quels sont les types de mariage? Demandez aux apprenants de citer les types de mariages et de décrire l'un de leur choix. Quelles sont les causes de divorce?

- Le culte secret (cultism)-Qu'est-ce que c'est qu'un culte secret? Quelles sont les personnes impliquées? Quelles sont les causes de culte secret bien dans les établissements scolairs que dans la grande communauté? Comment freiner ce fléau?
- letrafic d'argent (Money laundering) Qu'est-ce que c'est que le trafic d'argent? Quelles sont les personnes qui font ce trafic? Quelles sont les diverses causes de trafic d'argent? Quels sont les agences nationaux et internationaux qui luttent contre le trafic d'argent? Etc..
- Le trafic d'enfants
- le voyage (travel)
- Dialogue
- Exprimer ses gouts
- Se déplacer
- Donner des indications et des instructions *
- Donner des ordres

FRE 014 : CIVILISATION- Francophone Africa and France Culture I (2 CREDITS) C

- La France
- Histoire de la colonization et de l'indépendance des pays francophones
- La géographie de la France
- Le système politique en France (en comparaison avec celui du Nigéria)
- Les organes du gouvernement en France
- Le système éducatif (en comparaison avec celui du Nigéria)
- Le tourisme en France
- La cuisine et la gastronomie française
- Les fêtes nationales en France
- Etude de quelques textes littéraires tels que: Réné Maran, Mariama Ba, Ahmadou Kourouma, Hamidou Kane et Aminata Sow Fall.Identification of characteristics features of Creative writing e.g. Plot, characters, theme, setting and style (use of language, imageries etc.)

SECOND SEMESTER

FRE 021: ORAL EXPRESSION AND COMPREHENSION (2 CREDITS) C

- Rapporter
- Savoir parler de son enfance
- Situer un fait dans le temps- préciser les dates, les durées, les fréquences.
- Exprimer son sentiment
- Exprimer son inquiétude
- Exprimer ses ennuis
- Exprimer son irritation
- Exprimer ses plaintes/se plaindre
- Faire des reproches à quelqu'un/réprimander, protester, argumenter, se disputer, s'indigner, blâmer.
- Exprimer un souhait
- Parler de soi au future
- Interdire

- Accuellir
- Donner les ordres
- Rechercher une information par téléphone, s'excuser, se justifier, pardonner à quelqu'un, accuser/défendre.
- Exprimer la probabilité, la certitude et l'incertitude dans l'avenir.
- Anticiper les événements dans l'avenir
- Demander et donner des conseils
- Saivoir dire ce que l'on faisait avant et que l'on ne fait plus

FRE 022 : GRAMMAR (2 CREDITS) C

- Discours directe et indirecte au présent et au passé
- Approfondissement de l'imparfait
- Révision des verbes (emplois et formes)
  - Imparfait
  - Présent
  - Passé composé
  - futur
- La date : l'usage de le…., en…, depuis…. jusqu'à…., en…,
- La durée: depuis….., il y a…, pendant….,
- La fréquence : toujours, souvent, quelquefois, parfois, de temps en temps, jamais
- Les différentes formes de l'interrogation : directe/indirecte
- Verbe + de :
  - avoir peur de
  - avoir envie de
  - prendre soin de
  - trembler de
- Pronoms personnels, compléments devant un verbe (en, le, y)
- Les adjectifs et pronoms indéfinis : Quelques, certains, tout, aucun etc.
- Introduction au conditionnel passé avec négation : Tu n'aurais pas dû.
- Le subjonctif présent
- La forme interrogative (révision)
- Expression de la causalité : parce que, à cause de, grâce à, en raison de etc.
- Révision du subjonctif avec certains expressions : il se peut que + (subj.)
- Peut-être que + (futur) pour exprimer une prédiction
- Révision du conditionnel
- Le futur antérieur

NB: L'enseignant doit pouvoir mener et encourager ses étudiants á construire des phrases concretes avec chacun des éléments appris dans des situations réelles.

FRE 023: WRITTEN EXPRESSION & COMPREHENSION (2 CREDITS) C

- Se Présenteren utilisant de phrases simples.
- Savoir parler de son enfance
- Savoir dire ce que l'on faisait avant et on ne fait plus

- Situer un fait dans le temps
- Un texte à trous
- Comment décrire quelqu'un
- Comment décrire un lieu
- Décrivez la maison.
- Décrivez votre classe.
- Comment décrire un ami ou une amie

FRE 024 : CIVILISATION Francophone Africa and France Culture II(2 CREDITS) C

- Students should be exposed to aspects of contemporary French/Francophone cultures such as ways of greetings, modes of dressing, leisures etc. Areas to be considered include:
- La politesse
- Le 'vous' de politesse; (le vouvoiement comme signe de politesse)
- Le fonctionnement de l'agence de voyage
- Les rapports entre collègues
- La fête d'anniversaire à l'honneur d'un collègue
- Une enquête sur les activités préférées des Français en vue de sondage.
- Les loisirs,
- Les sorties
- Les moyens de transport
- L'horaire (quel temps fait-il)
- Histoire de la colonisation et de l'indépendance de quelques pays francophones
- La vie sociale et économique en France/pays francophones
- Le système administratif et politique – en france/pays francophones
- Le système politique français par rapport à celui de Nigeria
- Le système éducatif en france/pays francophones
- Les jeunes en France
- Les jeunes au Nigéria

NB:

- In FRE 014 and 024, Lecturers are advised to lay emphasis on aspects of similarities and differences in the French/francophone cultures and those of Nigeria where applicable
- Emphasis should be made on the communicative need of the French learner in the Minimum Standards, while the students need to be competent in written aspect of French Language to be able to sit and pass JAMB in French Language.
- No literary texts or authors were suggested in the JAMB syllabus.
- Working of French Sounds is incorporated into the Minimum Standards in FRE 011. This is to feel the gap in the Minimum Standards vis-à-vis that of JAMB
- Written exercises that dwell on topics such as HIV/AIDS, Communication, Child Trafficking, Cultism, Money laundering were incorporated into FRE 013 of the Minimum Standards as part of the emerging issues as observed in the JAMB Syllabus.
- Efforts should be made by lecturers to identify the current literary texts and authors to be studied in preparation for JAMB.
- It is of interest for lecturers to note that learners are expected to be able to sit and pass the qualifying JAMB Examination on French and be able to remedy their inadequacy in French to qualify them for NCE 100 Level. As such, lecturers are enjoined to acquaint themselves with the current JAMB Syllabus on French so as to be sure that learners have covered what they need to learn to excel in those exams.

Pre-NCE FRENCH

First Semester

Duration : 18-20 hours per unit (1 unit = 1 week)

	OBJECTIVES	CONTENT			ACTIVITIES	EVALUATION
Units *(Weeks)*	**Objectifs communicatifs** *Aims and objectives*	**Manière de le dire** *Possible language expressions*	**Champs lexicaux** *Vocabulary*	Structures grammaticales, **phonie / graphie** *Grammar, Pronunciation and Spelling*	**Pratiques de classe** *Suggested class activities*	**Évaluation formative** *Feedback evaluation*
2	**Identifier quelque chose / quelqu'un**	Comment ça s'appelle en français ? En français, ça s'appelle un/une/des … Qu'est-ce que c'est ? (quand les étudiants ne connaissent pas cet objet) C'est un/une… Ce sont des…	Les objets de la classe Des objets inconnus	Un, une, des C'est / ce sont S'appeler	Identification d'objet par photos Devinettes Identifier des objets connus (comment ça s'appelle en français ?) Identifier des objets inconnus (qu'est-ce que c'est ?)	Être capable d'identifier quelque chose puis de le nommer
	Décrire quelque chose, quelqu'un, une situation	C'est… Il/elle est grand(e), etc. Il/elle est plus…que Il/elle s'appelle Il y a C'est mon, ton, son cahier… Il est sur/sous/devant/derrière/…le bureau	Vocabulaire relatif à la taille, couleurs et aspect (adjectifs qualificatifs…) Comparatif	Celui de… Celle de… Ceux de … Mon, ton, son Plus…que	- Un élève doit décrire un objet que ses camarades n'ont pas vu. La classe doit trouver de quel objet il s'agit. - Téléphone arabe	Être capable de décrire un objet, une personne et de le situer dans l'espace
	Demander à qui appartient un objet	Questions : C'est à qui (ce/cette/cet/ces…) ? A qui est (ce/cette/cet/ces…) ? C'est le/la…de…. ? Réponses : Oui, c'est mon/ma /son/sa… Non, c'est le/la…de… Non, ce sont les…de…	Vocabulaire des objets	Ce, cet, cette, ces	- Un objet est perdu, les étudiants demandent à qui il appartient.	Être capable de demander à qui appartient un objet

Pre-NCE FRENCH

First Semester

Duration : 18-20 hours per unit (1 unit = 1 week)

	OBJECTIVES	CONTENT			ACTIVITIES	EVALUATION
Units *(Weeks)*	Objectifs communicatifs *Aims and objectives*	Manière de le dire *Possible language expressions*	Champs lexicaux *Vocabulary*	Structures grammaticales, phonie / graphie *Grammar, Pronunciation and Spelling*	Pratiques de classe *Suggested class activities*	Évaluation formative *Feedback evaluation*
3	Exprimer ses goûts / ses préférences	Tu aimes le/la/les... Oui j'aime le/la/les... J'aime beaucoup... Oui, j'aime, mais je préfère le/la/les... Non, je n'aime pas le/la/les/ça Non, je préfère...	Aimer/préférer + couleur, nourriture, sport, matières scolaires	Aimer Préférer Ne....pas Accord des adjectifs simples	- Jeu du chiffon - Interview - Questions professeur / étudiants et étudiants / professeur	Être capable de dire ce que l'on aime, n'aime pas ou préfère.
	Parler de ses loisirs	Je joue au/à la... Je fais du/de la... J'aime + verbe infinitif	Sports Instruments de musique Télévision, cinéma	à la/au de la / du aimer + infinitif	- **Jeu de rôles** : Interview d'une personnalité par un journaliste - Discussion	Être capable de parler de ses loisirs, de dire ce que l'on fait
	Présenter sa famille	Je vous présente... Voic/voilà...	Vocabulaire de la famille		Arbre généalogique : présenter les personnes par rapport à leur liens de parenté	Être capable de présenter ses proches
	Dire l'heure	Quelle heure est-il ? Il est quelle heure ? Il est....	Nombre de 30 à 100 'Heure, minutes Quart, demi, plus, moins, ...		demander et dire l'heure (heure courante et heure administrative)	Être capable de dire et demander l'heure

Pre-NCE FRENCH

First Semester

Duration : 18-20 hours per unit (1 unit = 1 week)

	OBJECTIVES	CONTENT			ACTIVITIES	EVALUATION
Units *(Weeks)*	**Objectifs communicatifs** *Aims and objectives*	**Manière de le dire** *Possible language expressions*	**Champs lexicaux** *Vocabulary*	Structures grammaticales, **phonie / graphie** *Grammar, Pronunciation and Spelling*	**Pratiques de classe** *Suggested class activities*	**Évaluation formative** *Feedback evaluation*
4	**Demander quelque chose à quelqu'un**	S'il te plait, donne-moi ton/ta/tes... S'il vous plait... Ferme la porte ! Asseyez-vous ! Donne-moi ...	Objets, vêtements Donner / prêter Ouvrir / fermer Se lever / s'asseoir	Impératif de certains verbes Pronom « me » Moi, nous Ton, ta, tes Un, une, des Le, la, les	- Chaque étudiant demande quelque chose à son voisin - **Jeu de rôles** : Vous avez oublié votre sac de classe, vous demandez ce qu'il vous faut à un camarade.	Être capable de demander quelque chose à quelqu'un
	Parler du temps	Il fait chaud/froid/bon/beau/humide. Il neige/pleut/grêle. Il y a des nuages/de l'harmattan/du brouillard/du vent...	Noms relatifs au temps (pluie, vent, nuages, etc.) Il y a...	Il y a... Il fait...	**Discussion** : Décrire le temps qu'il fait. **Jeu de rôles** : Un présentateur météo à la télévision	Être capable de parler du temps
	Raconter un événement passé	Je viens de... Il/elle vient de... Hier, je suis allé... La semaine dernière, j'ai mangé... Ce matin, j'ai travaillé.	Indicateurs de temps (hier, ce matin, la semaine dernière, la dernière fois,...). Activités de la vie courante	Passé proche : venir de + infinitif Passé composé avoir ou être + participe passé de certains verbes	**Discussions** : - Dire ce que l'on a fait hier - Raconter un événement passé récent **Jeu de rôles** : Parler de son emploi du temps. Interview d'une star sur sa vie	Être capable de raconter un événement passé

Pre-NCE FRENCH

First Semester

Duration : 18-20 hours per unit (1 unit = 1 week)

	OBJECTIVES	CONTENT			ACTIVITIES	EVALUATION
Units *(Weeks)*	**Objectifs communicatifs** *Aims and objectives*	**Manière de le dire** *Possible language expressions*	**Champs lexicaux** *Vocabulary*	Structures grammaticales, **phonie / graphie** ***Grammar, Pronunciation and Spelling***	**Pratiques de classe** *Suggested class activities*	**Évaluation formative** ***Feedback evaluation***
5	**Faire des courses / marchander**	**Demander ce que l'on veut :** Je voudrais… ; Vous avez… ? Il me faut… ; Donnez-moi…. **Répondre à la demande :** Oui, il y a… ; Non, je n'ai pas… ; Désolé… **Demander au client ce qu'il veut :** Vous désirez ? Que désirez-vous ? Que voulez-vous ? Qu'est-ce que vous voulez ? **Demander et donner un prix :** C'est combien ? Combien coûte… ? Ça coûte combien ? **Dire son opinion sur le prix :** C'est trop cher. C'est bon marché. C'est bien.	Lieux de vente : magasin, boucherie, marché, boutique, etc. Marchandises : fruits, légumes, vêtements, etc. Prix, vendeur, vendeuse, marchand(e)	Verbes : vouloir (présent, conditionnel et impératif) Impératif de : donner, avoir, acheter Approche des formes interrogative, exclamative et négative	**Jeu de rôles** : marchand / client dans différentes situations	Être capable de faire ses courses, de marchander et d'acheter
	Proposer / Accepter / Refuser	**Questions :** Est-ce que je peux t'aider ? Pourrais-je t'aider ? Qu'est-ce que je peux faire… ? Je peux te donner un coup de main ? **Accepter :** Oui, avec plaisir. Oui, pourquoi pas. Oui, je veux bien D'accord, si tu veux. **Refuser :** Non, merci. Non, ça va. Ne vous en faites pas. Ne t'en fais pas.	Nom des objets D'accord Ok Merci S'il te plaît S'il vous plaît	Conditionnel présent + infinitif Le verbe Pouvoir au présent + infinitif	**Jeu de rôles** : Une personne se propose d'en aider une autre. Plusieurs situations (acceptation, refus)	Être capable de proposer ses services. Être capable d'accepter ou refuser.

Pre-NCE FRENCH

First Semester

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6	**Se renseigner**	Désolé de te/vous déranger Excuse(z)-moi Je voudrais savoir : si + affirmation ; où se trouve… Peux-tu/pouvez-vous me dire… Questions directes : qui, quand, comment, où, pourquoi… ?	Vocabulaire par rapport à la nature des renseignements demandés	Question directe et indirecte Affirmation, négation Révision du conditionnel présent	**Jeu de rôles** : Une personne demande des informations dans un office de tourisme. Que vois et quoi faire ? Un nouvel étudiant arrive et se renseigne sur l'établissement	Être capable de se renseigner dans diverses situations.
	Demander son chemin	Où se trouve… ? Où est… ? Comment aller à/au… ? La gare, c'est où ? Vous allez tout droit, à gauche, à droite, première à droite… Devant, derrière, à côté Tournez à droite	Lieux dans la ville Indications (gauche, droite, devant, en face, derrière, etc.)	Tourner, prendre	**Jeu de rôles** : Vous êtes à Cotonou et vous cherchez le chemin de votre hôtel. Vous demandez à un passant.	Être capable de demander son chemin dans une ville inconnue
	Accueillir	Sois/soyez le/les bienvenu(s) Entrez Je vous en prie Asseyez-vous Fais/Faites comme chez toi/vous	Bienvenue Certains verbes d'accueil	Révision impératif Entrer S'asseoir	**Jeu de rôles** : Un couple accueille un autre couple à dîner. Le serveur d'un restaurant accueille des clients.	Être capable d'accueillir une ou des personnes

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7	Ordonner Interdire	L'ordre -Viens ici ! Ferme la porte ! Demander quelque chose à quelqu'un (révision)-avec le nom seul : La porte ! L'interdiction -Il ne faut pas +infinitif Il ne faut pas fumer à l'école Ne fume pas !	Certains verbes pour exprimer l'ordre : exiger, ordonner, ...+ nom Certains verbes (mise en situation de classe) : écrire, lire, se lever, se taire,... Certains noms pour savoir ce que l'on souhaite ou ce que l'on ordonne (je voudrais/j'exige un verre d'eau,...)	- Impératif pour l'ordre (révision) - Impératif négatif pour l'interdiction - Il ne faut pas + infinitif (refus, interdiction)	Chansons (à vous d'inventer l'air ou de changer les paroles) *Bonjour Monsieur le professeur, je voudrais apprendre le français* *Aidez-moi s'il vous plaît,* *Ne refusez pas Monsieur,* *Je veux vraiment parler français.* *merci Monsieur le professeur.* *Et à bientôt !* Jeux de rôles Imaginez un dialogue entre vous et vos parents dans la situation suivante : Vous voulez aller voir un(e) de vos ami(e)s mais vos parents ne le veulent pas et vous l'interdisent.	Être capable de donner des ordres ou interdire

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8	**Raconter un événement passé**	Je ne suis pas allé... Je n'ai pas mangé.	Vocabulaire du récit.	Passé composé : négation	Raconter une histoire, un conte	Être capable de parler de soi et des autres au passé
			Autrefois, avant. Il y avait	Imparfait	Parler de son enfance	
	Raconter dans le passé	Quand j'étais/tu étais Autrefois/avant, j'étais... Je mangeais, j'étudiais, etc.	C'était Indicateurs de temps	Opposition imparfait/passé composé (je mangeais quand j'ai vu...)	**Interview-simulation** : Un journaliste interview une célébrité.	Être capable de raconter une histoire
	Exprimer des projets, parler de l'avenir	Quand je serai... Quand j'aurai 20 ans... Dans deux ans...	Noms de métiers (révision)	Futur simple Futur proche (aller + infinitif)	Faire part de ses projets professionnels.	Être capable de parler de ses projets futurs
		Je/tu/nous... + futur simple : je ferai, Je serai... Il y aura...	Objets désirés	Concordance futur/futur (quand j'aurai... je serai...)	Jeu du chiffon **Discussion** enseignant/étudiants	
		Je voudrais + infinitif Plus tard, j'aimerais + infinitif Bientôt je vais manger. Nous allons danser ce soir.	Indicateurs temporels futurs	Conditionnel présent		

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9	**Exprimer un souhait, une volonté**	**le souhait** : Poliment : Je voudrais + infinitif Je voudrais + nom + SVP **la volonté :** je veux + infinitif je veux + nom	Certains verbes pour exprimer le souhait ou la volonté (aimer, souhaiter, désirer, vouloir, …) Certains noms pour savoir ce que l'on souhaite.	Conditionnel présent pour exprimer le souhait avec certains verbes (aimer, souhaiter, vouloir, …) + infinitif (ou + nom)	**Jeu de rôles** Un génie vous demande de faire trois vœux. Un serveur prend votre commande dans un bar, un magasin.	Être capable d'exprimer ses vœux et ses volontés
	Conseiller, obliger	**le conseil :** Tu devrais/vous devriez + infinitif Il faudrait + infinitif **L'obligation :** Nom + formule de politesse (Ex : Un soda, s'il-vous plaît.)	Infinitifs de certains verbes en fonction de la situation de communication	Il faudrait + infinitif (conseil) Il faut + infinitif (obligation) Conditionnel présent du verbe *devoir*	**Discussion prof/élèves et élèves/élèves/** Qu'est-ce que vous êtes obligés de faire à l'école/à la maison ? Quels conseils peux-tu donner à tes camarades ?	Être capable de conseiller un ami
	Donner son avis, exprimer un jugement	**Demander un avis/un jugement :** Qu'en penses-tu ? Qu'est-ce que tu/vous en dis/dites ? C'était bien ? Ça t'a plu ? **Pour introduire son avis/son jugement** D'après moi, je…Je pense que … A mon avis …Je trouve que … Oui, c'était bien/pas mal.	En fonction des sujets abordés Ex : Donner son avis sur un métier, sur un programme à la télévision, sur la nourriture de la cantine, etc.	Verbes d'opinion + que *(penser, croire, trouver, ...)*	**Discussions prof/élèves et élèves/élèves** D'après vous comment vivaient les Européens au siècle dernier ? Donner son avis/exprimer un jugement à partir d'un document authentique relatif à un sujet découvert par les apprenants (Ex : publicité pour un produit)	Être capable d'exprimer son avis sur un sujet

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10	**Parler de son état de santé**	**Quand tu vas bien :** Je vais (très) bien, merci. Je me porte (très) bien. Je suis en (pleine) forme. **Quand tu vas mal :** Ça ne va pas bien (du tout). Je suis fatigué(e). Je ne suis pas en forme. Je suis souffrant(e). J'ai mal à la gorge, à la tête, etc. Je ne me sens pas bien. Je me sens mal. J'ai un rhume, la grippe. Je tousse. J'ai de la fièvre. Je me suis blessé(e) **Quand tu vas mieux :** Je me sens mieux. Ça va mieux. Je suis guéri(e).	le médecin, l'hôpital, la pharmacie, les médicaments le rhume la toux/tousser la fièvre les parties du corps (tête, bras, jambe, dents, etc.) Noms de certains plats et ingrédients Vocabulaire de la cuisine	Les verbes : être, aller, avoir (révision) Se porter et se sentir au présent Avoir mal + préposition	**Jeux de rôles** 1-Entre deux ami(e)s. 2-Médecin- malade. 3-Malade-pharmacien(ne) **Chanson** Reprendre les parties du corps (ex : Oh la la dans mon zoo …)	Être capable de définir son état de santé.
	Présenter et expliquer quelque chose (le menu)	**Demander ce que c'est :** C'est quoi ce plat ? Qu'est-ce que c'est ? **Présenter quelque chose :** Ceci est… C'est un… Ceci est un plat français **Demander des explications :** Quels sont les ingrédients ? Qu'est-ce qu'il y a dedans ? **Expliquer.** Il y a … Ce plat est composé de … C'est du poulet		Il faut + infinitif (explication)	**Jeux de rôles** Une personne demande des renseignements à un serveur dans un restaurant : celui-ci présente et explique les plats de menu (documents authentiques ou fabriqués par les apprenants) Les apprenants expliquent une recette de cuisine à partir d'images (Ex : Il faut casser un œuf, …)	Être capable de s'informer au restaurant

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11	**Raconter dans le futur** **Parler de soi au futur**	Ce soir, ce matin, demain, demain soir, dans deux jours, bientôt, … Dans deux heures, dans mille ans. L'année prochaine.	Les activités de la vie courante. Emploi du temps. Quelques métiers pour parler de son avenir professionnel.	Futur proche (révision) : Verbe aller au présent + infinitif de certains verbes. Indicateurs de lieu : à, à la, au, aux	**Discussions** Dire ce que l'on veut faire plus tard. **Jeux de rôles** Un voyant fait des prédictions à son client. Construire le bulletin météo du lendemain.	Être capable de parler de son avenir
12	**Raconter un récit au passé (suite)** **Exprimer des hypothèses**	Actions : …quand il s'arrêta. Soudain il se leva, et fit… Soudainement, tout s'alluma Il va peut-être venir. Peut-être qu'il va venir (éviter le subjonctif) Si j'avais de l'argent, j'achèterais… Si nous étions riches, nous achèterions…	Indicateurs temporels (quand, soudain, soudainement, lorsque, etc.) Adverbes exprimant des hypothèses (sûrement, certainement, …) Peut-être	Passé simple des verbes Futur proche (révision) Futur simple Passé composé Imparfait Conditionnel Concordance des temps : Si + imparfait ♉ conditionnel	Raconter une histoire à rebondissements Raconter une histoire qui fait peur. Lecture de textes au passé simple. Les étudiants expriment des hypothèses sur leur avenir, sur l'avenir de leur pays. **Jeu de rôles** : Vous attendez un ami qui est en retard et vous émettez des hypothèses par rapport à ce retard.	Être capable de lire et raconter un récit au passé Être capable d'exprimer des hypothèses
13	**Evaluation**	Examen final de fin de semestre	Révision unités 1 à 12	Révision unités 1 à 12	Evaluation orale et écrite	Évaluation sommative

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1	**Rapporter :** **- une conversation** **- des ordres** **- des réactions**	Qu'est-ce qu'il / elle lui demande ? Il / Elle lui demande Il / Elle lui a demandé si / qui, etc. Qu'est-ce qu'il / elle lui répond / a répondu ? Il / Elle lui répond que… Il / Elle lui a répondu que… Il / Elle lui demande de + (infinitif), mais… Il / Elle lui a demandé de + (infinitif), mais…	Vocabulaire à partir des activités	Discours indirect au présent et au passé : Qu'est-ce qu'il / elle dit ? Il/elle dit que… Qu'est-ce qu'il / elle a dit ? Il/elle a dit que… Concordance des temps (suite)	**Activités orales :** Le professeur demande à deux élèves de sortir. Il dialogue avec un(e) élève de la classe. Il fait rentrer les deux élèves qui doivent, en questionnant la classe (sauf le professeur et l'élève), retrouver le contenu du dialogue. **Le secret** : Un élève vient au tableau. Des élèves se disent quelque chose à l'oreille. L'élève qui est au tableau les questionne. Ex : Qu'est-ce qu'il t'a dit / demandé ? / Qu'est-ce que tu lui as dit / demandé ? / Qu'est-ce qu'il t'a répondu ? **Jeu de rôles :** La grand-mère sourde demande aux enfants de répéter ce que viennent de dire les parents / la télévision / la radio.	Être capable de rapporter les parol quelqu'un
	Annoncer quelque chose	Tu sais / savais que … ? Il paraît que… Nous vous informons que…		Savoir que… + indicatif Il paraît que… + indicatif	Une amie francophone vient vous rendre visite au Nigeria. Vous rencontrez le chef du village qui ne parle pas français. Vous rapportez à votre amie ses propos. A partir du journal / bulletin radio local du jour, les apprenants jouent le rôle d'un présentateur et annoncent à leurs camarades les informations les plus surprenantes.	Être capable d'annoncer une information

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-Second semester

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2	**Savoir parler de son enfance** **Savoir dire ce que l'on faisait avant et que l'on ne fait plus**	Quand tu étais petit(e), tu étais calme / turbulent(e) / gentil(le) / méchant(e), etc. Quand j'étais petit, j'étais..., j'avais..., j'aimais..., je détestais..., j'allais..., je (verbe d'action). Et toi ? Mais maintenant, tout a changé Regarde, par exemple, ... Comment étaient tes grands-parents, tes amis, etc. Ils / Elles étaient..., avaient..., portaient... Habituellement, ils / elles.... Tu...encore ? Et avant ? Tu le faisais ?	Les habitudes de l'enfance.	Approfondissement de l'imparfait Ne...plus Encore	**Activité orale:** Le professeur décrit des aspects de son enfance et demande aux élèves de faire de même, en s'appuyant sur des questions précises. Il fait parler les étudiants sur leurs souvenirs d'enfance, les personnes et les lieux, les grandes fêtes, etc. **Jeu de rôles:** Votre ami(e) vous parle de sa grand-mère. Vous posez des questions pour connaître son histoire. **Activité ééite:** Le professeur demande aux élèves de rédiger par petits groupes un texte court sur l'école primaire : Quand j'étais à l'école primaire,...	Être capable de re des souvenirs

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3	**Situer un fait dans le temps** **Préciser les dates, les durées, les fréquences**	Quand mes parents étaient jeunes, ils… + (imparfait). Maintenant, ils ne + (présent) plus. Quand est-ce que ça a changé ? Ça a changé le / en / il y a + (date). Qu'est-ce qui s'est passé ? Ce jour-là,… + (passé composé). Depuis combien de temps ils ne + verbe (présent) + plus ? Ils ne+ (présent) plus depuis... Qu'est-ce que tu fais d'habitude / souvent ? Plus tard, qu'est-ce que tu feras ?	Habitudes Changements	Révision des verbes (emplois et formes) : - imparfait - présent - passé composé - futur La date : Le…, En…, Depuis…, Jusqu'à / en… La durée : depuis, il y a, pendant La fréquence : toujours, souvent, quelquefois, parfois, de temps en temps, jamais	**Activité orale :** Le professeur demande aux élèves ce que leurs parents faisaient quand ils étaient jeunes, s'ils continuent toujours de le faire ou bien, s'ils ont cessé de le faire. Le professeur interroge les élèves sur la fréquence et la durée de leurs activités et habitudes. **Activité écrite :** Avant, maintenant, demain, un jour… Par groupes de 4, les élèves écrivent une phrase pour chacun de ces termes. Les phrases produites doivent constituer un ensemble cohérent. Chaque groupe lit son texte à la classe. **Jeu :** **Ni oui, ni non** : Le professeur pose des questions aux élèves qui ne doivent utiliser ni le mot **Oui** ni le mot **Non** dans leurs réponses. Ex : Quand tu étais petit, tu avais peur la nuit ? Parfois / souvent / jamais / toutes les nuits.	Être capable de da un événement, d'e préciser la durée e fréquence

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4	**Exprimer l'inquiétude**	Je suis inquiet(ète) Qu'est-ce qui a bien pu lui arriver ? Qu'est-ce qu'il a ? Il pleure. Qu'est-ce qui ne va pas ?	Santé Déplacements Vocabulaire de l'inquiétude	Les différentes formes de l'interrogation : directe / indirecte Qu'est-ce que tu fais ? Je te demande ce que tu fais. S'évanouir	**Activités orales :** Le professeur demande aux élèves de lui proposer des situations concrètes et vécues qui ont provoqués chez eux de l'inquiétude, il les note au tableau. C'est au tour des élèves de provoquer chez leurs camarades le débat d'opinion en abordant les problèmes de société (drogue, sida, etc.)	Être capable d'expri son inquiétude
		J'avais peur de prendre l'avion J'étais terrorisé ! J'avais la frousse ! Angoissé, épouvanté, s'évanouir, trembler, avoir le trac, etc.		verbe + de. avoir peur de avoir envie de prendre soin de Trembler de peur	**Activité écrite :** Un élève écrit à ses parents qu'il entend régulièrement des bruits bizarres dans le dortoir. Il craint que ce soit un fantôme.	
	Exprimer son ennui **Exprimer de l'irritation**	J'en ai assez ... J'en ai marre... C'est toujours pareil... C'est toujours la même chose... Et puis quoi encore ? Ah non ! J'en ai ras-le-bol. eh là ! Ça suffit !	Les tâches ménagères / le travail	« en, le, y » pronoms personnels compléments devant un verbe J'en veux encore J'en ai assez Tu m'en donnes, etc.	**Activité orale :** Le professeur demande aux élèves d'imaginer des situations où l'ennui doit être exprimé et d'autres situations où c'est plus fort que l'ennui : l'irritation. **Jeu de rôles :** Ensuite , jouer ces situations.	Être capable d'expri son ennui et son irri Être capable d'expri son mécontentemen
	Se plaindre	Certains jours, tout m'ennuie. Certains se plaignent trop souvent Quel bruit / quelle chaleur ! Il y a vraiment trop de...		Vous êtes content, je le vois. Vous êtes satisfait, je m'y attendais. Les adjectifs et pronoms indéfinis : quelques, certains, tout, aucun, etc.	**Activité écrite :** Exercice écrit type correct / incorrect en rapport avec la situation qui est positive ou négative et dont la réponse est connue d'avance. *Ex : J'ai gagné à la loterie ! J'en ai assez !* *Est-ce correct ou incorrect ?*	

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Units *(Weeks)*	**Objectifs communicatifs** ***Aims and objectives***	**Manière de le dire** ***Possible language expressions***	**Champs lexicaux** ***Vocabulary***	Structures grammaticales, **phonie / graphie** ***Grammar, Pronunciation and Spelling***	**Pratiques de classe** ***Suggested class activities***	**Évaluation form** ***Feedback evaluat***
5	**Faire des reproches à quelqu'un** **Réprimander** **Protester** **Argumenter** **Se disputer** **S'indigner**	Ah non ! Je ne suis pas d'accord ! Qu'est-ce que tu racontes ? Tu dis n'importe quoi ! Tu fais n'importe quoi ; Mais qu'est-ce que tu as fait ? Pourquoi tu es parti comme ça sans prévenir ? Il ne fallait (surtout) pas ... Tu n'aurais pas dû ... C'est pas possible ! Je n'y crois pas ! Mais je rêve ou quoi ? Mais pour qui tu te prends ?	Les matières à l'école Les loisirs (révision) En voiture : Vitesse Danger Panneaux de signalisation La conduite Vocabulaire du souhait	Introduction au conditionnel passé avec négation : Tu n'aurais pas dû. Discussion sur la différence avec le conditionnel présent. Il ne fallait pas...	**Jeux de rôles :** Un élève a de mauvaises notes. Il se le fait reprocher par ses parents. Vous êtes dans un taxi entre Cotonou et Lomé. Le chauffeur roule trop vite. Vous lui faites des reproches. Un commerçant refuse de vous rendre la monnaie... **Activité écrite :** Écrire une lettre de protestation à la compagnie d'électricité car vous êtes sans courant depuis deux jours. (Il est possible de faire cette activité en situation de face à face ou au téléphone).	Être capable de protester en argumentant
	Exprimer un souhait (suite)	Je souhaite que tu fasses... Je voudrais que tu ailles... Je veux que vous mangiez. Il voudrait que j'aille avec lui.		Le subjonctif présent	**Jeu de rôles :** Vous recevez ce soir votre directeur à dîner, vous donnez des consignes à votre cuisinier (utilise si possible le subjonctif). **Activité écrite :** Le P.-D.G. d'une entreprise présente ses vœux à son personnel. Ecrivez son discours en utilisant si possible le subjonctif.	Être capable d'exprimer ses dé:

	OBJECTIVES	CONTENT			ACTIVITIES	EVALUATION
Units *(Weeks)*	Objectifs communicatifs *Aims and objectives*	Manière de le dire *Possible language expressions*	Champs lexicaux *Vocabulary*	Structures grammaticales, phonie / graphie *Grammar, Pronunciation and Spelling*	Pratiques de classe *Suggested class activities*	Évaluation form *Feedback evaluat*
6	**Rechercher une information par téléphone**	Allô ? C'est / Ici … à l'appareil. Je voudrais un renseignement… Pourriez-vous me dire / m'indiquer / me donner… Rappelez plus tard…	Le téléphone, combiné, portable, etc. Allô ?	La forme interrogative (révision) Qui, où, quand, comment ? + inversion du sujet Qui est-ce, où est-ce, quand est-ce, comment est-ce ? + sans inversion du sujet		Être capable d'argumenter au téléphone
	S'excuser **Se justifier** **Pardonner quelqu'un** **Accuser / défendre**	Je vous prie de m'excuser Désolé Je ne l'ai pas fait exprès Ce n'est pas ma faute C'est à cause de … C'est parce que… Pardonnez-moi Ce n'est pas grave / Ce n'est rien Je te comprends Je te pardonne Ne vous en faites pas	Le pardon Désolé	Impératif : révision Expression de la causalité : Parce que, à cause de, grâce à, en raison de, etc.	**Jeu de rôles :** Au marché, vous renversez un étalage de fruits et légumes. Face aux reproches du vendeur, vous vous excusez en vous justifiant (pressé, en retard). Vous repartez en étant en bons termes avec le vendeur. **Jeu de rôles :** Les apprenants, en groupes, simulent le déroulement d'un procès (des accusés, des témoins, des avocats, le juge…). Certains défendent les accusés, d'autres veulent, au contraire, qu'ils soient punis d'avantage. Chacun apporte ses arguments…	Être capable d'échapper à une situation délicate s'excusant et en s justifiant. Être capable d'acc ou de défendre quelqu'un en se justifiant.

Pre NCE FRENCH-Second semester

Duration: 18-20 hours per unit (1 unit = 1 week)

	OBJECTIVES	CONTENT			ACTIVITIES	EVALUATION
Units *(Weeks)*	Objectifs communicatifs *Aims and objectives*	Manière de le dire *Possible language expressions*	Champs lexicaux *Vocabulary*	Structures grammaticales, phonie / graphie *Grammar, Pronunciation and Spelling*	Pratiques de classe *Suggested class activities*	Évaluation form *Feedback evaluat*
7	**Exprimer la probabilité, la certitude et l'incertitude dans le futur** **Anticiper les événements futurs**	Il se peut qu'il se rende Il se peut qu'il pleuve demain Il se pourrait que ... Peut-être qu'il neigera demain C'est sûr / certain que... Je suis sûr / convaincu que ... Il est clair / évident que ... Je ne crois / pense pas que ... Ça m'étonnerait que ... Ce n'est pas sûr que ... Tu joueras quand tu auras fini tes devoirs	Adjectifs relatifs au temps (beau, ensoleillé, pluvieux, nuageux ...) Vocabulaire relatif aux prédictions	Révision du subjonctif avec certaines expressions : il se peut que + (subj.) Peut-être que + (futur) pour exprimer une prédiction Révision du conditionnel présent (ça m'étonnerait que...) Le futur antérieur	**Activité orale :** Deux amis imaginent le temps qu'il fera le lendemain. **Activité écrite :** A partir de leur horoscope, les élèves disent ce qui peut ou ne peut pas leur arriver dans le futur.	Être capable d'imaginer ce qui passer

Pre NCE FRENCH-Second semester

Duration: 18-20 hours per unit (1 unit = 1 week)

	OBJECTIVES	CONTENT			ACTIVITIES	EVALUATION
Units *(Weeks)*	**Objectifs communicatifs** *Aims and objectives*	**Manière de le dire** *Possible language expressions*	**Champs lexicaux** *Vocabulary*	Structures grammaticales, **phonie / graphie** *Grammar, Pronunciation and Spelling*	**Pratiques de classe** *Suggested class activities*	**Évaluation form** *Feedback evaluat*
8	**Demander et donner des conseils**	Qu'est-ce que je dois faire ? Qu'est-ce que tu ferais à ma place ? J'aimerais te demander quelque chose … Comment … ? Soyez aimable avec eux. Il faut savoir souffrir pour être belle ! Il faut que tu… Tu devrais… Vous devriez… A ta place, je n'irais pas. N'oubliez pas de … Je te conseille d'y aller Si j'étais vous, je n'irais pas Vous n'avez qu'à aller …	Les plats en France (bœuf bourguignon, escalope de veau à la provençale, …) Les saveurs (salé, doux, à point, bon, appétissant, …)	Révision du conditionnel présent pour donner des conseils Révision du subjonctif (il faut que …) Si + (imparfait), conditionnel Ne … que Les prépositions à, de , en, par et pour Ces prépositions peuvent introduire un complément de lieu, etc… Ex : Je pars en France. Je passerai par Bruxelles puis je partirai pour Paris. De Paris, j'irai à Lyon.	**Jeu de rôles :** Tu arrives dans un restaurant en France avec un ami français. On te donne le menu mais tu ne sais que choisir car il y a un trop grand choix. Tu demandes des conseils à ton ami et au serveur qui attend la commande. **Activités écrites :** Vous écrivez à une agence de tourisme en France pour demander des conseils sur les lieux à visiter.	

Pre NCE FRENCH-Second semester
Duration: 18-20 hours per unit (1 unit = 1 week)

	OBJECTIVES	CONTENT			ACTIVITIES	EVALUATION
Units *(Weeks)*	**Objectifs communicatifs** *Aims and objectives*	**Manière de le dire** *Possible language expressions*	**Champs lexicaux** *Vocabulary*	Structures grammaticales, **phonie / graphie** *Grammar, Pronunciation and Spelling*	**Pratiques de classe** *Suggested class activities*	**Évaluation form** *Feedback evalua*
9	**Civilisation nigériane**	Histoire et politique Vie sociale et économique				
10	**Civilisation et littérature de l'Afrique de l'Ouest**	Histoire de la colonisation à l'indépendance Vie sociale et économique Système administratif et politique Art, culture et tradition Littérature : René Maran, Mariama Bâ, Hamadou Kourouma, Hamadou Kone, Aminata Saw-Fall,				
11	**Civilisation et littérature française**	Le système éducatif (comparaison avec celui du Nigeria) Les jeunes en France Littérature : Jean de La Fontaine, Molière, Félix Leclerc,				
12	**Révision générale**					
13	**Evaluation**	End-of-year exams.				End-of-year exams

HAUSA LANGUAGE

COURSE OUTLINE

FIRST SEMESTER

S/N	COURSE CODE	COURSE TITLE	CREDITS	UNIT
1	HAU 011	HARSHE (LANGUAGE)	3	C
2	HAU 012	ADABI (LITERATURE)	3	C
3	HAU 013	HAU 013 ADABI (LITERATURE)	3	C
			9	**C**

SECOND SEMESTER

S/N	COURSE CODE	COURSE TITLE	CREDITS	UNIT
1	HAU 021	HARSHE (LANGUAGE)	3	C
2	HAU 022	RUBUTACCEN ADABI (WRITTEN LITERATURE)	4	C
			7	**C**

COURSE DESCRIPTION

FIRST SEMESTER

HAU 011 Harshe (Language) (3 Credits) C

(a) Ka'idojin Rubutu (Orthography)

Alphabetization; spelling; rules of world merger and division; Punctuation, paragraphing; all in line with standard Hausa

(b) Auna Fahimta (Comprehension)

Contextual questions from short unseen passages of about 300 words

(c) Tsarin Sauti (Phonology)

i. Consonants – production and classification in terms of phonation, place and manner of articulation;

ii. Vowels – production and classification in terms of Position of tongue and lips. Monophthongs and diphthongs;

iii. Tone – e.g high, low and falling tone patterns;

iv. Syllable structure – syllable types, e.g. open and closed syllables, light and heavy syllable;

v. Syllabic categories of words – Monosyllabic disyllabic, etc.

vi. Vowel length – long and short Vowels;

vii. Phonological processes – e.g. Assimilatory; palatalization and vowel Harmony; no-assimilatory: Insertion and deletion.

(d) Translation 1

i. Introduction to translation

ii. Purpose and techniques of translation

iii. Types of translation

iv. Types of translation of simple words, English to Hausa and Hausa to English

v. Translation of simple sentences from English to Hausa and Hausa to English

vi. Translation of simple passages English to Hausa and Hausa to English

HAU 012 Al'adu (Culture) (3 Credits) C

(a) Rayuwar Hausawa (Hausa Rite de Passage)

i. Haihuwa (birth) – daukar ciki da goyon ciki da haihuwa da Shayarwa da al'adun makon Haihuwa da wanda banti da Yaye da kaciya da samartaka;

ii. Aure (Marriage) – ire-irensa da nema da baiko da daurin aure da biki da zaman aure da Saki da zawarci;

iii. Mutuwa (death) – fadar Mutuwa da wanka da salla da Jana'iza da zaman makon da Sadaka da takaba da gabo.

(b) Zamantakewa (Social Institutions)

i. Tsarin zaman iyali da zaman gandu da dangantarkar kishiyoyi da'yan uwantaka da barantaka da agolanci;

ii. Makwabtaka;

iii. Aikin gandu da na gayya;

iv. Abota da kawance

v. Gaisuwa da karimci

(c) Sana'oin Gargajiya (Traditional Occupations)

i. Ire-irensu – noma da kira da Jima da kasuwanci da Wanzanci da sassaka da Farauta da dukanci dasaka da kitso da rini da fawa da fakar korai da sauransu.

ii. Yanayinsu – hanyoyin gadon su da kayayyakin yin su da Matakan tafiya dasu da Muhimmancinsu;

iii. Kayayyaki ko amfanin da suke samarwa

iv. Sarautunsu

v. Sana'o'I masu dangantaka da

vi. Jinsi – aikatau da kwadago; Kitso da aski.

(d) Kayayyakin Bukatun Rayuwa (Material Culture)

i. Na bukatun ciin gida (Household) tufafi da karkitan cikin gida

ii. Na sauran bukatu (others) gine-gine da girke-girke da sauransu.

HAU 013 ADABI (LITERATURE) (3 Credits) C

1. Adabin Baka (Oral Literature)

(a) Zuben baka (Narratives);

Tatsuniya da almara da hikaya da kissa da tarihi

(b) Maganganun azanci (Fok Sayings) Take da kirari da habaici da zambo da Karin Magana da kacici-kacici da salon Magana da adon harshe.

(c) Wakoki (songs)

i. Ire-irensu na fada da na jama'a da na maza da sauransu

ii. Jigo da salo da zubi da tsari da mawaki da kayan kida da abin da aka wake.

iii. Zabbabun wakokin makada.

MAKADI 2011

i. Dan Anace Gandi
ii. Binta Zabaya Katsina

2012-2013

i. Haruna Uji
ii. Garba Supa
iii. Wakokin aiki: na nika da dabe da na daka da na talla da Sauransu;
iv. Wakokin yara (Maza da Mata); na aure da na dandali da sauransu

(**d) Wasanin Kwaikwayo da Gargajiya (Traditional Drama):**

i. Na yara

- Ire-iren su langa da was an; yartsana sa tashe da Wasan gauta da dokin kara da sauransu;
- Yadda ake yin su
- Muhimmancinsu

ii. Na manya;

- Ire-iren su ‘yan kama da Kalankuwa da hoto da Wowo da tashe, da Sauransu;
- Yadda ake yin su;
- Muhimmancinsu.

SECOND SEMESTER

HAU 021 Harshe (Language) (3 Credits) C

(a) Ginin Jumla (Syntax)

i. Word class – e.g. nouns, Pronouns, verbs, adverbs, Adjectives, Prepositions, Conjunctions, Interjections and Idiophones;

ii. Grammatical categories – e.g. Tense and aspect (general and Relative past: general and Relative continuous first and Second future, habitual); Mood (subjunction and Negative); gender (Masculine. Faminine and neuter) and Number (singular and plural);

iii. Sentence structure – e.g. Verbal sentence, nominal Phrase + verbal phrase and their components, non-verbal Sentence: nominal phrase + Stabilizer, nominal phrase + Complement + stabilizer, Nominal phrase + continuous Frame (yana../yake..) (+da) + Nominal phrase;

iv. Sentence types – e.g. simple Sentences, compound, sentence and complex Sentences;

v. Clauses – types (e.g. relative and subjective); functions (e.g. main and subordinate)

vi. Adjectives and verbs from Nouns.

(b) Kirar Kalma (Morphology)

i. Roots and stems

ii. Affixation – e.g. prefix, infix Suffix and their derivational and inflectional functions;

iii. Gender and number Inflections;

iv. Derivation of nouns and Adjectives from verbs;

(c) Ma’ana (Semantics)

i. Lexical aspects of word meaning – e.g. ambiguity, synonymy and antonymy.

ii. Figures of speech – aspects of specialized meanings of words and phrase

(d) Translation II

This segment will concentrate on the practical aspect of translation focusing on contemporary issues in the media.

HAU 022 Rubutaccen Adabi (Written Literature) (4 Credits) C

a) Zube (Prose)
b) Waka (Poetry)
c) Wasan Kwaikwayo (Drama)

3. Al'adu (Cuture(2 Credit Units Compulsory

a) ***Bukukuwa da Wasanni (Cultural Festivities)***

i. Na addini (religious) bikin sallah da takutaha (sallar gani) a cika-ciki da saukar karatu, da sauransu;
ii. Na gargajiya (traditional) kalankuwa da buxar dawa da sauransu.
iii. Na sana'oi (tranditional) bikin kamun kifi da dambe da kokawa da wasan farauta da wasan makera da hawan kaho da sauransu.
iv. Na nishadi-sukuwa
v. Na yara (children's game's) shalle da kulili kurciya da a sha rowan tsuntsaye da gada da carafke da sauransu

b. Camfe-came da Bauta (Tranditional Beliefs and Religion)

Kan gida da camfi da bori da maita da tsafi da duba da tsibbu da kambun baka

c. Sarautun Gargajiya (Traditional Authority)

i. Ire-irensu hakimai- da Dagatai da masu unguwanni
ii. Na bayin sarki-shantali da jakadiya da baraya da sauransu
iii. Masu alaqa da addini; liman da alqali
iv. Ayyukansu

d. Magungunan Gargajiya (Tranditional Medicine)

i. Ire-irensu – sassaqe- sassaqe da sauyoyi da na gari da na ruwa da layu da rubutu
ii. Hanyar amfani das u-sha da shafawa da surface da turare da shaqawa da taunawa da tsotsawa da daurawa da likawa.
iii. Awo da kimantawa
v. Ayyukansu – riga kafi da warkarwa

PRE – NCE IGBO

COURSE OUTLINE

FIRST SEMESTER

S/N	COURSE CODE	COURSE TITLE	CREDIT	STATUS
	IGBO 011	Igbo Sounds/Tonology & Spelling Rules	**2**	**C**
	IGBO 012	Lexical Dev./Intro. to Igbo Grammar	**2**	**C**
	IGBO 013	Essay Writing/Comprehension/ Translation	**2**	**C**
	IGBO 014	Introduction to Igbo Language	**2**	**C**

SECOND SEMESTER

S/N	COURSE CODE	COURSE TITLE	CREDIT	STATUS
	IGBO 021	Igbo History & Institutions	**2**	**C**
	IGBO 022	Igbo Culture	**2**	**C**
	IGBO 023	Further Studies in Igbo Literature	**2**	**C**
	IGBO 024	Contemporary Issues	**2**	**C**

COURSE DESCRIPTION

IGBO 011: IGBO SOUNDS/TONOLOGY & SPELLING RULES (2CREDITS) C

Identification and recognition of Igbo alphabets, Production and articulation of Consonants and Vowels; study of different types of tones – high/low/mid & down step, tone drills (enough for the students to begin to hear tones). Uses of tones in simple words (bi – syllabic words) and simple constructions. Nsupe na iwu nsupe, Non – occurrence of consonant cluster and word – final consonants.

IGBO 012 LEXICAL DEV./INTRO. TO IGBO GRAMMAR (2CREDITS) C

Word recognition by the use of flash cards; word acquisition from simple passages and word acquisition by the use of physical objects.

Formation of Igbo simple words, phrases, clauses and simple sentences as found in simple drill and exercises.

IGBO 013 FURTHER STUDIES IN IGBO LITERATURE (2CREDITS) C

Forms of Essay Writing – Descriptive, Narrative, Expository; Abstract.

Testing for the understanding of simple passages; Introduction to oral Comprehension, Reading, listing and recall will be emphasized.

Listening to and reading of selected Igbo texts.

Method of Translation, Igbo exercises. Translation of words, Phrases and simple sentences. Letter Writing, Reporting, Addresses and Debate.

IGBO 014 INTRODUCTION TO IGBO LANGUAGE (2 CREDITS) C

Literary devices such as alliteration, assonance parallelism, metaphor, simile, hyperbole, personification and proverbs. Etc.

Aspects of Igbo Oral Literature (Agumagu & Onu/Agumagu Odinaala – foketales) Anecdotes (Ukabuilu), Myths (nkomiriko) Legend (nkokiriko) Poems (Abu) Songs (uri) Chants (Mbem), Riddle (agwugwa), tongue-twisters (okwuntuhi) etc.

SECOND SEMESTER

IGBO 021 IGBO HISTORY & INSTITUTIONS (2 CREDITS) C

Introductory lesson on the Igbo people; their location and their neighbours, the Igbo concept of family, Igbo belief system and moral values;

Alumnwaayi/Igba alukwaghim, omumu na ite omugwo, Ike ekpe, akwamozu, Igba mkpe, umu nna, umuokpu/umu Ada, Igba nkwy, Egwuregwu; mgba, egwu onwa, igba booru ukwu. Idu isi/inu iyi dyz

IGBO 022 IGBO CULTURE (2 CREDITS) C

- Igo oji na iwa oji
- Ilu nwaanyi
- iri ji ohuru
- Ekike ndi Igbo
- Nri/Erimeri ndi Igbo
- Ile obia
- Ekpe/mmanwu dyz

IGBO 023 FURTHER STUDIES ON IGBO LITERATURE (2 CREDITS) C

Appreciation of some selected texts based on the 3 Igbo literary genres viz Prose, Drama, Poetry.

Why we study Literature

Problems associated with the study of Literature

Importance of Literature to Man and Society

IGBO 024 CONTEMPORARY ISSUES (2CREDITS) C

- Otu nzuzo (Cultism)
- Ime mpu ule (Exam Malpractices)
- HIV/AIDS
- Drug Abuse
- Rights of Women in Polities
- Human Rights Violation
- Religious Tolerance

PRE-NCE YORUBA

COURSE OUTLINE

FIRST SEMESTER

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	STATUS
1	YOR 011	Use of Yoruba	2	C
2	YOR 012	Phonetics and Yoruba phonology	2	C
3	YOR 013	Yoruba Grammar	2	C
4	YOR 014	Yoruba Oral literature	2	C
			8	

SECOND SEMESTER

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	STATUS
1	YOR 021	Yoruba Comprehension and Essay	2	C
2	YOR 022	Yoruba Morphology	2	C
3	YOR 023	Yoruba written Literature	2	C
4	YOR 024	Yoruba Culture	2	C
			8	

COURSE DESCRIPTION
FIRST SEMESTER

YOR 011 USE OF YORUBA (2 CREDITS) C

i) Intensive Practice on Current Yoruba orthography
ii) Registers and Usages
iii) Figures of speech – Idioms, Metaphors etc
iv) Yoruba Proverbs
v) Non-Verbal Communications i.e. para-linguistics (Aroko)
vi) Practice in Translation

YOR 012 PHONETICS AND YORUBA PHONOLOGY (2 CREDITS) C

i) Production of sounds (vowels and consonants)
ii) Tone, tone change and tonal transfer
iii) Syllable structure
iv) Sound process (Vowel harmony and co-occurrence etc)
v) Elision and contraction
vi) Loan word integration

YOR 013 YORUBA GRAMMAR (2 CREDITS) C

i) Word classes – Nouns, verbs, adjectives, adverbs, pronouns, conjunctions, prepositions etc.
ii) Phrases and clause – types and functions
iii) Sentences: Types, structures and functions
iv) Grammatical categories – tense and aspects.

YOR 014 YORUBA ORAL LITERATURE (2 CREDITS) C

i) Documented Yoruba Oral Literature: Yoruba riddles; alo, aro, imo. Yoruba Folktale; Orisirisi itan Yoruba
ii) Yoruba written prose
iii) Yoruba written poetry
iv) Yoruba incantations (ofo)
v) Simple Ifa poetry
vi) Yoruba praise poetry (Oriki)
vii) Yoruba Proverbs
NB: (See the current JAMB and SSCE 'O' Level syllabus for the selected topics)

SECOND SEMESTER

YOR 021 YORUBA COMPREHENSION AND ESSAY (2 CREDITS)C

i) Essay writing
ii) Types of Essay
iii) Intensive writing on each type
iv) Hints on Summary and Comprehension skills
v) Copious practice on comprehension exercise
vi) Intensive practice in summary making

YOR 022 YORUBA MORPHOLOGY (2 CREDITS) C

i) Definition of Morphology
ii) Types of morphology (Bound, free)
iii) Definition of words
iv) Word formation processes – Prefixation, infixation – Reduplication, Nominalization.

YOR 023 YORUBA WRITTEN LITERATURE (2 CREDITS) C

i) Prose, Poetry, Drama
- Moral lessons from texts
- Narrative techniques
- Figurative and Idiomatic expression
- Central theme
- Types of drama

Note: See the current JAMB and SCCE 'O' Level Syllabi for the Selected text)

YOR 024 YORUBA CULTURE (2 CREDITS) C

i) Yoruba Belief System – Olodumare, Akudaaya, Emere etc.
ii) Peace Making and Conflicts resolutions
iii) Greetings
iv) Traditional Aesthetic
v) Yoruba ceremonies – Marriage, Naming and Chieftaincy
vi) The concept Omoluabi
vii) Moonlight plays
viii) Taboos
ix) Apprenticeship and graduation
x) Yoruba traditional occupations
xi) Yoruba traditional healing system and medicine
xii) Yoruba corporative system
xiii) Yoruba burial rites

Note: Lecturers are to consult the **current** JAMB syllabuses for the UTME in their teaching

SCIENCE EDUCATION

PRE-NCE BIOLOGY

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
BIO 011	Cell Biology	2	C
BIO 012	Animal Biology	2	C
BIO 013	Plant Biology	2	C
BIO 014	Biology Practical I	2	C
	TOTAL	**08**	

SECOND SEMESTER

COURSE CODE	**COURSE TITLE**	CREDITS	STATUS
BIO 021	Ecology	3	C
BIO 022	Genetics & Evolution	3	C
BIO 023	Biology Practical II	2	C
	TOTAL	**08**	

COURSE DESCRIPTION

FIRST SEMESTER

BIO 011 CELL BIOLOGY (2CREDITS)C

i. Characteristics of living organisms.
ii. Level of organisation of living organisms.
iii. Definition and types of cells.
iv. General structure and functions of cell organelles.
v. Similarities and differences between plant and animal cells.
vi. Physical and chemical processes in the cell (Diffusion, Osmosis, Plasmolysis, etc).
vii. Cell division (Mitosis, Meiosis).

BIO 012 ANIMAL BIOLOGY (2CREDITS) C

i. General introduction to the classification of organisms (e.g. Mineral, Protista and Fungi).
ii. Outline of the classification of Animal Kingdom.
iii. Distinguishing features of invertebrate (protozoans, coelentrates, platyhelminthes, Nematodes, Annelids, Arthropods, Moluscs).
iv. Distinguishing features of Vertebrates (Pisces, Amphibians, Reptiles, Aves stressing the transition process from water to land in the case Amphibians; Biological importance of Arthropods.
v. Characteristics of mammals.
vi. Study of anatomy and physiology in animals.
- Nutrition in Animals.
- Classification of food substances and food test (Carbohydrate, proteins, fats and oils, vitamins etc).
- Food test (e.g. starch, reducing sugar, protein etc).
vii. Dentition in animals (the mammalian tooth structure, types and functions).
viii. Structure and functions of parts of a mammalian alimentary canal.
ix. Processes of nutrition (ingestion, digestion, absorption and assimilation of digested food, egestion).
x. Transport, respiration, reproductive and excretory system in animals.
xi. Sense organs in animals (skin, nose etc).
xii. Skeletal and support systems in Animals.

BIO 013 PLANT BIOLOGY (2CREDITS) C

i. Outline of the classification of plant kingdom.
ii. General characteristics of lower plants (thallophytes, Bryophytes, Pteridophytes).
iii. Spermatophytes, Gymnosperms and Angiosperms (Monocots and Dicots).
iv. Morphology, Anatomy and functions of roots, stems, leaves and flowers) mechanisms and processes of pollination, fertilization, fruits and seeds development and dispersal of seeds and fruits.
v. Plant Physiology – photosynthesis, mineral requirements (micro and macro nutrients), plant vascular system (phloem and xylem); processes and mechanism of transportation in plants; respiration and excretion in plants.
vi. Internal structure of dicot and monocot plants.
vii. Growth, meaning of growth, seed germination and conditions necessary for seeds germination.
viii. Plant hormones (Phytohormones) e.g. auxins, gibberellins, cytokinin and ethylene.

BIO 014 (3Hrs per week) BIOLOGY PRACTICAL I (2CRECITS) C

i. Laboratory/ safety and precautions.
ii. Microscope: parts of microscope and their uses; mounting and building objects with microscope.
iii. Study of cells using microscope (plant and human cells e.g. onion and human cheek cells).
iv. Study of life specimen and slides of invertebrates (e.g. protozoans, coelentrates etc).
v. Study of life specimens and slides of Algae e.g. Spirogyra; fungi, e.g. mucor.
vi. Study of specimen of vertebrates e.g. Pisces, reptiles etc.
vii. Morphology and Anatomy of roots, stems leaves and flowers.
viii. Dissection of a small mammal to show the digestive, circulatory, unrinogenital and nervous systems.
ix. Experiment to demonstrate diffusion, Osmosis and plasmolysis.

SECOND SEMESTER

BIO 021 ECOLOGY (3Credits) C

i. Basic Concepts in Ecology e.g. Habitat, population, niche, ecosystem etc.
ii. Natural Habitat: types of Habitat and adaptation of some organisms in the habitat.
iii. Population study e.g. Population density and overcrowding, factors affecting population size (Biotic factors e.g. food, pests disease, predation, competition and reproductive ability; abiotic factors e.g. temperature, space, light, rainfall, topography etc).
iv. Ecological succession: Primary and secondary succession.
v. Energy relation in a living organisation, trophic levels, food chain and web, energy flow.
vi. Soil studies, characteristics of different types of soil (sandy, loamy, clayey) soil structure, component of soil (inorganic, organic and soil organisms); soil fertility (process of loss and renewal of soil fertility).
vii. Humans and Environment; diseases and conditions that favour the spread of disease, transmissible diseases (e.g. cholera, tuberculosis etc) and sexually transmitted diseases such as (gonorrhea, syphilis, AIDS etc.
viii. Environmental Pollution and its control; Sources, types, effects and control methods of pollution.

ix. Conservation of Natural Resources; Renewable and non-renewable natural resources; Local and International Bodies responsible for conservation e.g Nigerian Conservation Foundation (NCF), United Nations Environmental Programme (UNEP) etc.
x. Relevance of Biology to Agriculture.

BIO 022 GENETICS AND EVOLUTION (3 CREDITS) C

i. Variation in population: Morphological and Physiological Variation (continuous and discontinuous variation), application of variation in crime detection, blood transfusion and determination of paternity.
ii. Heredity: Inheritance in organism, Mendels laws of inheritance, chromosomes as basis of inheritance; probability in genetics and sex determination; application of principal of hereditary in agriculture, medicine etc; sex-linked characters e.g. baldness, haemophilia, colour blindness etc; blood grouping.
iii. Adaptation for survival; competition and factors responsible for competition in a biotic community; types of competition (intra and inter-specific competition) Relationship between competition and succession; structural and behavioural adaptation in organisms.
iv. Concept of evolution, evidence of evolution, theories of evolution (e.g. Lamarck's Theory, Darwin's Theory).
v. Evolutionary trends in plants and animals.

BIO 023 BIOLOGY PRACTICAL II (3 Hrs per week) (2Credits) C

i. Sampling techniques.
ii. Study of different methods of estimating the population of plant and animal communities.
iii. The following methods should be practiced.
- Direct count by use of quadrats and transects
- Capture recapture method using sweep nets, light traps, plankton net etc.
- Carry out studies on variation and inheritance e.g. flower colours of *plumeria sp;* chicken colours, tongue rolling, finger prints; blood groups, height, finger clinching, testing phenythicarbamide (PTC).

PRE-NCE CHEMISTRY

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
CHE 011	General Principles of Chemistry	2	C
CHE 012	General Physical Chemistry	3	C
CHE 013	Practical Chemistry I	3	C
		8	C

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
CHE 021	Practical Chemistry II	3	C
CHE 022	Introductory Organic Chemistry	2	C
CHE 023	Organic Compound	3	C
		8	C

COURSE DESCRIPTION
FIRST SEMESTER

CHE 011 GENERAL PRINCIPLES OF CHEMISTRY (2 CREDITS)

I. Matter and Separation Techniques:

Matter: definition and properties; Elements, Compounds and Mixtures; Physical and Chemical Changes; Separation processes: evaporation; simple and fractional distillation, sublimation, filtration, crystallization, precipitation, and chromatography.

II. Structure of the Atom:

Gross features of the atom: Atomic number/proton number, number of neutrons. isotopes, organic m ass, relative atomic mass ($\mathbf{A_r}$) and relative molecular mass **($\mathbf{M_r}$)** based on Carbon Atoms, Molecules and ions. Nuclear chemistry:

Nature of millions half-life as a measure of the stability of the nucleus:

III. Periodicity of the Elements:

Periodic law. Trend in periodic properties, namely ionization potential,

electron affinity, electronegativity, ionic radii, atomic radii (down a group and across a period). Periodic gradation of properties of elements in group VII i.e. the halogens: (F_2, Cl_2, Br_2, I_2) properties of chlorine as a typical halogen. General properties of the first transition element series.

IV. Bonding:

Inter-atomic bonding: ionic bonding- factors influencing its formation; properties of ionic compounds. Covalent bonding - factors influencing its formation; properties of covalent compounds. Simple molecules and their shapes; e.g. H_2, and 0_2. Metallic bonding - factors influencing its formation, properties of metals. Intermolecular bonding - Van der Waal's forces and hydrogen bonding. Comparison of all bond types.

V. Stoichiometry and Chemical Reactions:

Symbols, formulae and equations: chemical symbols, empirical and molecular formulae, chemical equations. Laws of chemical combinations. Experimental demonstration of laws **of** conservation of mass, constant composition and multiple proportions. Gas laws: Dalton's, Gay Lussac's and Avogadros's laws.

The mole concept: The mole as the unit of measurement of amount of substance and mole ratios. Solutions: Standard solutions, concentration terms.

VI. States of Matter:

a) Postulates of the kinetic theory of matter;
b) Kinetic model of matter: the use of kinetic model to explain
   (i) nature of solids, liquids and gases;
   (ii) change of states of matter;
   (iii) Diffusion
c) Limitations of kinetic theory in respect of solid and liquid states;
d) Explanation of gas laws using the kinetic theory of matter - Boyle's, Charles', Graham's and Avogadro's, laws, Dalton's law of partial pressures, Gay Lussac's law.

CHE 012 GENERAL PHYSICAL CHEMISTRY (3Credits)

I. Energy and Energy Changes (Thermochemistry):

(a) Energy changes in physical and chemical processes, enthalpy, energy diagrams. Forms of energy, energy content, transfer of energy.
(b) Description, definition and illustration of energy changes and effect - exothermic and endothermic processes; total energy of a system as the sum of the various forms of energy e.g. kinetic, potential, electrical, heat, sound, etc. Enthalpy

changes of formation, combustion, solution, neutralization and their practical measurements.

(c) Definition and interpretation of the relationship

ΔG = ΔH - TΔS, illustrated with suitable examples.

II. Rates of Reactions and Equilibrium System

(a) Rates of reaction:

i) Factors affecting rates of reaction

ii) Theory of reaction rates: collision theory.

b) Equilibrium:

i) Properties of equilibrium system

ii) Effects of temperature, pressure/concentration and catalyst on the equilibrium position

iii) Le Chatelier's principle

III. Acids, Bases and Salts:

(a) Definitions of acids and bases.

(b) physical and chemical properties of acids and bases.

(c) acids, bases and salts as electrolytes.

(d) Acid - base indicators.

(e) pH and pH - scale.

(f) weak acids and weak bases

(g) hydrolysis.

(h) acid - base titrations.

(i) Qualitative treatment of buffer solutions.

IV. Solubility:

(a) general principles and practical applications.

(b) solute, solvent and solution.

(c) Saturated, unsaturated and supersaturated solutions.

V.

(a) Deliquescent, efflorescent and hygroscopic substances.

(b) Methods of preparation of simple salts.

VI. Redox Reactions:

(a) Oxidation and reduction processes.

(b) Oxidizing and reducing agents (including tests).

(c) Redox equations.

(d) Electrochemical cells:

(i) standard electrode potential.

(ii) drawing and writing of cell diagrams.
(iii) e.m.f. of cells.
(iv) applications of electrochemical cells.

VII. Electrolysis:

(a) Principles of electrolysis, ionic theory and mechanism (e.g using dilute acids).
(b) Factors influencing discharge of ions.
(c) Faraday's laws.
(d) Examples of electrolysis: electrolysis of molten/fused salts, **NaOH (aq),** (using mercury cathode). **KI (aq), $CuSO_4$ (aq),** using different electrodes, graphite, platinum and copper and conc. **HCl**
(e) Practical applications: electroplating, extraction of aluminium, etc.
(f) Corrosion of metals:
(i) treated as redox process.
(ii) rusting of iron and its economic cost.
(iii) prevention of corrosion based on relative magnitude of electrode potential.
(iv) preventive methods like galvanising, sacrificial cathode or cathodic protection and non-redox methods.

CHE 013 PRACTICAL CHEMISTRY (3Credits)

I) General Skills and Principles:

a) Measurement of mass and volume.
b) Preparation and dilution of standard solutions.
c) Filtration, recrystallization and melting point determination.
d) Measurement of heats of neutralization and solution.
e) Determination of **pH** values of various solutions by using indicators and **pH** meters.
f) The percentage purity of acids and bases.

II) Acid—Base Titrations:

The use of standard solutions of acids and alkalis and the indicators methyl orange and phenolphthalein to determine the following:

a) The concentration of' acids and bases.
b) Water of crystallization.
c) The solubility of acids and bases.
d) The percentage purity of acids and bases.

SECOND SEMESTER

CHE 021 PRACTICAL CHEMISTRY II (3CREDITS)

Qualitative Analysis:

I) a) Characteristic tests for the following gases**: H_2 NH_3, $C0_2$, HCI, SO_2, 0_2.H_2S, and NO_2.**

b) Characteristic action of dilute **HCI** on solid samples or aqueous solutions and conc. **H_2SO_4**on solid samples of the following; **CI^-,CO_3^{2-}, NO_3^- SO_4^{2-} ,SO_3^{2-}, S^{2-}**.

c) Confirmatory tests tr the above anions.

II) a) Characteristic tests for the following cations with dilute **NaOH (aq) and NH_3 (aq): NH_4^+, Ca^{2+}, Pb^{2+}, Cu^{2+}**, **Fe^{2+}, Fe^{3+},Al^{3+}** and **Zn^{2+}**

b) Confirmatory tests for the above actions.

CHE 022 INTRODUCTORY ORGANIC CHEMISTRY (2 CREDITS)

I. Unique nature of carbon atom.

II. Classification:

(a) Classification of organic compounds e.g. hydrocarbons, alkanols, alkanoic acids, etc.

(b) Functional groups e.g. hydroxyl **(-OH),** carboxyl **(-COOH), etc.**

III. Determination of empirical and molecular formulae and molecular structures of organic compounds.

IV. Alkanes, Alkenes and Alkynes:

(a) General Characteristics.
(b) General molecular formulae.
(c) Nomenclature of the first ten members of alkanes and their isomers.
(d) Sources.
(e) Preparation of a named example.
(f) Physical and chemical properties.
(g) Uses.
(h) Refining of petroleum and uses.

V. Benzene.

(a) Structure.

(b) Physical and chemical properties.

VI. Alkanols:

a) Sources, nomenclature and structure.
b) Classification, physical and chemical properties.
c) Laboratory tests.
d) Uses.

VII. Alkanoic Acids:

a) Sources, nomenclature and structure.
b) Physical and chemical properties.
c) Laboratory test
d) uses.

VIII. Alkanoates as derivatives of alkanoic acids:

a) Sources, nomenclature and structure.
b) Physical and chemical properties.

IX. Fats and oils:

a) Sources
b) Physical and chemical properties.

X. Amino acids:

a) Sources.
b) Physical and chemical properties.

CHE 023 ORGANIC COMPOUNDS (3 CREDITS)

An introduction to the tetravalency of carbon, the general formula, IUPAC nomenclature and the determination of empirical formula of each class of the organic compounds mentioned below:

a) Aliphatic hydrocarbons
   i. Alkanes: Homologous series in relation to physical properties, substitution reaction and a few examples and uses of halogenated products. Isomerism: structural only (examples on isomerism should not go beyond six carbon atoms).

Petroleum: Composition, Fractional distillation and major products; cracking and reforming, petrochemicals – starting materials of organic syntheses, quality of petrol and meaning of octane number.

ii. Alkenes
Isomerism: structural and geometric Isomerism, additional and Polymerization reactions, polythene and synthetic rubber as examples of products of polymerization and its use in vulcanization.

iii. Alkynes
Ethyne: production form action of water on carbides, simple reactions and properties of ethyne.

b. Aromatic hydrocarbons e.g. benzene – Structure, properties and uses.

c. Alkanols: Primary, Secondary, Tertiary production of ethanol by fermentation and form petroleum by-products. Local examples of fermentation and distillation, e.g. Gin from palm wine and other local sources and glycerol as a polyhydric alkanol. Reactions of OH group – oxidation as a distinguishing test between primary, secondary and tertiary alkanols.

d. Alakanals and alkanones: chemical test to distinguish between Alakanals and alkanones.

e. Alkanoic acids: Chemical reactions; neutralization and Esterification, ethanedioic (oxalic) acid as an example of a dicarboxylic acid and benzene carboxylic acid as an example of an aromatic acid.

f. Alkanoates: Formation from alkanoic acids and Alkanols – fats and oils as alkanoates saponification: Production of soap and margarine from Alkanoates and distinction between Detergents and soaps.

g. Amines (Alkanamines) Primary, Secondary and tertiary

h. Carbohydrates: classification – mono, di and polysaccharides, composition, chemical tests for simple sugars and reaction with concentrated tetraoxosulphate (VI) Acid. Hydrolysis of Complex sugar e.g. cellulose form cotton and starch cassava, the uses of sugar and starch in the production of alcoholic beverage, pharmaceuticals and textiles.

i. Giant molecules e.g. proteins, enzymes, Natural rubbers and polymers.

Note: Use the current JAMB Syllabuses for Unified Tertiary Matriculation Examination as a further document for enriching the content of the curriculum

PRE-NCE HEALTH EDUCATION

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	COURSE TITLE	CREDIT UNIT	STATUS
	FIRST SEMESTER		
HED 011	Growth and Development I	3	C
HED 012	Growth and Development II	3	C
HED 013	Beverages, food preparation and Physical Health	1	C
HED 014	Personal Health I	1	C
		8	
	SECOND SEMESTER		
HED 021	Introduction to Disease and Control	3	C
HED 022	First Aid and Safety Education	1	C
HED 023	Introduction to community Environmental, family and Personal health Education	3	C
HED 024	Personal Health II	1	C
7CREDITS		**8**	

COURSE DESCRIPTION

FIRST SEMESTER

HED 011 GROWTH AND DEVELOPMENT I (3CREDITS) C

I. Definition of Growth and Development

II. Cell

(a) Types of Cell

(i) Somatic cells

(ii) Sex cells

(b) Cell Division

(i) Mitosis

(ii) Meiosis

(c) Cell Differentiation:- Formation of tissues, organs and systems.

III Reproduction

(a) Structures and functions of male and female reproductive

organs

(b) Conception: pregnancy, foetal development and childbirth

(c) Disorders of reproductive system.

IV. Nutrition

(a) Classes, sources and functions of food nutrients

(b) Calorific value of food nutrient

(c) Balanced diet

(d) Water:— The role of water in relation to nutrition should be stressed

(c) Organs of the digestive system and heir functions

(f) Type, structure, and functions of the teeth

(g) Process of digestion

(h) Absorption, assimilation and metabolism

(I) Disorders of the digestive system and their prevention.

V. Respiratory System

(a) Structure and functions of the respiratory system

(b) Process of respiration

(i) Mechanism of breathing

(ii) Gaseous exchange

(iii) Tissue/Cellular respiration

(c) Disorders of respiratory system and their control

VI. Circulatory System

(a) Structure and functions of the circulatory system

(i) Heart

(ii) Blood and lymph vessels

(b) Composition of blood and lymph

(c) (i) Blood and lymph circulation

(ii) Process of blood clotting

(d) Blood groups, rhesus factor, haemoglobin genotype

(e) Disorders of the circulatory system and their causes: sickle cell anaemia, leukemia, haemophilia, arteriosclerosis, hypertension, coronary thrombosis and stroke.

HED 012 GROWTHS AND DEVELOPMENT II (3 CREDITS) C

I. Excretion

(a) Structures and functions of the kidney and skin

(b) Process of urine formation

II. Skeletal System and Muscles

(a) The general plan of the axial and appendicular skeleton

(b) Functions of the skeletal system

(c) Joints: Structure and types

(d) Principles of levers
(e) Structure and types of muscle tissues
(f) Movement

III. Posture and Postural Defects

(a) Characteristics of correct posture in sitting, standing, walking and lifting
(b) Determinants of correct postures
(c) Types of postural defects:- *flat* foot, scoliosis, kyphosis and lordosis
(d) Effects of incorrect posture on physical appearance, position and functioning of body organs.

IV. Nervous System

(a) Structure and functions of the components of the nervous system
(b) Voluntary and involuntary actions
(c) Disorders of the nervous system

V. Sense Organs

(a) Structures and functions of the following sense organs:- eye, tongue, ear, nose, and skin.
(b) Eye defects and their corrections: myopia, hypermetropia, astigmatism. presbyopia, squint (cross - eye).
(c) Auditory defects
  (i) Conductive impairment
  (ii) Neurosensory impairment
(d) Disorders of the skin
(e) Care of the eye, ear and skin.

VI. Endocrine System

Location of the different endocrine glands, the hormones produced and their functions. Use charts/models to study the location of the glands. Emphasis on the effects of over-and under-secretion of hormones.

HED 013 BEVERAGES, FOOD PREPARATION AND PHYSICAL HEALTH (1Credit)C

I. Beverages

Types and effects of alcoholic and non-alcoholic beverages (treat negative and positive effects)

II. Food Preparation

(a) Principles of food hygiene: food handling, cleaning of cooking utensils and surroundings and effects of poor food hygiene to be

stressed.

(b) Effects of methods of food preparation on their nutrients, washing, boiling, frying, baking and roasting.

III. Food Preservation

Methods of food preservation:

(i) Smoking/drying/dehydration;

(ii) Freezing/refrigeration addition of chemicals/sugar/salt, bottling/pickling/canning.

(iii) Process, advantages and disadvantages of each method to be discussed.

IV. Physical Health

(a) Body Forms: Ectomorph, rnesomorph, endomorph

(b) Maintenance of health

(c) Personal hygiene

(d) Homeostasis

Physiological factors affecting homeostasis - Body temperature, blood sugar level, water balance, electrolyte balance, pH and blood pressure are to be highlighted. Students should test urine for pH with litmus paper and also count pulse rate. Treat positive and negative feedback control system.

HED 014 PERSONAL HEALTH I (1CREDIT) C

i. Concept of personal Health and Scope

ii. Choice of personal wear

iii. Cleanliness and Storage

iv. Hygiene of sleeping areas, living rooms, toilets and bathrooms.

v. Hygiene of kitchen, dining and utensils.

SECOND SEMESTER

HED O21 INTRODUCTION TO DISEASE AND CONTROL (3 Credits) C

I. Communicable Diseases

(a) Meaning of the terms endemic, epidemic and pandemic stages of the Diseases

(b) Factors necessary for communicable diseases to occur:

i. Causative agent

ii. Susceptible host

iii. Transmission route

(c) Bacteria, fungi, viruses, protozoa, rickettsia and worms

II. **Principles of prevention and control of the diseases –** e.g. immunization, sterilization, isolation.

III. Classification to communicable disease – each disease to be discussed under the headings: causative agent, mode of transmission, signs and symptoms, prevention and control.

(a) Air-borne diseases: Common cold, measles, whooping cough, poliomyelitis, tuberculosis and cerebro-spinal meningitis.

(b) Water/Food-borne diseases: dysentery, cholera, typhoid, fever and schistosomiasis.

(c) Insect-borne disease: malaria, yellow fever (jaundis), trypanosomiasis and filariasis.

(d) Worm – infestation

a. Ascaris lumbricoides (round worms)
b. Taenia solium (tape worm)
c. Ancylotoma duodenale (hook worm)
d. Dracunculus medinensis (guinea worm)
e. Animal-borne diseases e.g. rabies etc.
f. Contact disease: gonorrhea, syphilis, Tinea pedis (athlete's foot), Tinea capitis (ringworm), leprosy, scabies and Acquired Immune Deficiency Syndrome (HIV/AIDS).

IV. Non-Communicable Diseases

Types of non-communicable disease – each disease to be discussed under the headings: cause, symptoms, prevention/control where applicable, diabetes mellitus, sickle cell anaemia etc.

V. Epidemic Situations

VI. Pioneers in Health Science

(a) African pioneers: Lambo, Omololu Ogunlesi, Oluwole Odeku, Nichol, Konotey – Abulu, Adeniyi-Jones.

(b) Non-African pioneers: Leeuwenhoek, Pasteur, Jenner, Lister, Koch, Hopkins, Fleming, Harvey, Ross and Manson.

HED 022 FIRST AID AND SAFETY EDUCATION (1 Credit) C

I. First Aid

(a) Aims and principles of First Aid

(b) First Aid Kit

(c) Specific emergency conditions: cuts/wounds, bleeding, dislocation, fractures, burns, scalds, shocks, asphyxia/suffocation, poisoning.

II. Safety Education

(a) Types and causes of accident in relation to location e.g. home, road, schools market, industries etc.

(b) Factors causing accidents e.g. fire

(c) Safety education – safety principles and measures of various types of accidents.
(d) Disasters: types of disasters, prevention and relief measures.

HED 023 INTRODUCTION TO COMMUNITY, ENVIRONMENTAL, FAMILY AND PERSONAL HEALTH EDUCATION (3 CREDITS) C

I. Community Health

(a) Family health programme: role of orthodox and traditional health services; maternal health and child health progammes.
(b) School health services – different health services to be provided by the school should be treated.

II. Environmental Health

(a) Water supply
(b) Disposal of waste
  i) Refuse disposal
  ii) Sewage disposal
(c) Housing
  Criteria for good housing and effects of substandard housing on health.

III. Problems of Environmental Health

(a) Pollution – cause and prevention of different types of pollution and effects on health.
(b) Poor sanitation effects and effects of pest infestation in homes.

IV. Public Health Agencies

(a) National health agencies and their role in providing health services
(b) International health agencies – role and functions of World Health Organisation, Internatinal Red Cross and UNICEF.

V. Industrial Health Services

Need for health care and rehabilitation

VI. Occupational Hazards

Need for health insurance scheme

VII. Vital Statistics

(a) Birth rate
(b) Mortality rate
(c) Morbidity rate and statistics
  Use of health records to be stressed

VIII. Family Life and Sex Education

(a) Sex Education

(i) The family – characteristics of a happy family and the role of each member and factors influencing family life to be stressed
(ii) Family types – monogamous, polygamous, single parent, nuclear and extended family.
(iii) Family Problems – social and emotional causes to be stressed
(iv) Family Planning – meaning and need for family planning: Sources of family planning services should be treated.
(v) Contraceptive techniques – relative reliability, advantages and disadvantages of each technique.

IX. Emotional and Mental Health

(a) Attributes of emotional health
(b) Personality defence mechanism
(c) Mental illness

X. Chemical Substances that Alter Behaviour

(a) Tobacco
  (i) Component
  (ii) Effects of smoking on health
(b) Drugs
  (i) Types of drugs
  (ii) Drug abuse – effects of drug abuse' consequences of self-diagnosis and self-medication and prevention of drug abuse to be stressed.

(c) Alcohol: Effects of alcohol on health – reasons for drinking alcohol and methods of controlling drinking to be stressed.

XI. Healthful Consumer Habits

(a) Consumer health products and services – the importance of checking label and expiry dates on products before purchase and dangers of quacks and quackery to be highlighted.
(b) Factors influencing choice of consumer product – the role of diagnostic and dispensing services to be stressed.

HED 024 PERSONAL HEALTH II (1 CREDIT) C

i. Method of Handling food, its preparation and storage
ii. Hygiene of the environment
iii. Relationship of hygiene to health
iv. Application of personal hygiene

MATHEMATICS

COURSE OUTLINE

FIRST SEMESTER

S/N	Course Cord	Course outline	Credits	Status
1	MAT 011	Number & Numeration	2	C
2	MAT 012	Algebraic Processes	2	C
3	MAT 013	Pure Mathematics I	2	C
4	MAT 014	Pure Mathematics II	2	C

Second Semester

S/N	Course Cord	Course outline	Credits	Status
1	MAT 021	Menstruation, Plane Geometry & Trigonometry	2	C
2	MAT 022	Statistics, Probability & Calculus	2	C
3	MAT 023	Mechanics	2	C
4	MAT 024	Statistics	2	C

COURSE DESCRIPTION

FIRST SEMESTER

MAT 011 NUMBER AND NUMERATION (2 CREDITS) C

- **Number bases:** Binary numbers, conversion from base 2 to base 10 and vice versa; other number bases e.g. 3, 4, 5, 6, 7, 8 etc
- Fractions, Decimals and Approximations.
- **Indices: Laws** of indices and numbers in standard forms
- Logarithms: Relationship between indices and logarithms e.g.
  $y = 10k \longrightarrow k = \log 10y$; Basic rules of logarithms i.e. $\log 10\ (Pq)$
  $= \log_{10} P + \log_{10} q$; $\log_{10} \frac{P}{q} = \log_{10} P - \log_{10} q$;
  $\text{Log}_{10} + Pn = n \log_{10} P$

- Use of Tables of Logarithms; Base 10 Logarithm and Antilogarithm tables.
- **Surds**: Simplification and Rationalization of simple surds
- **Sequences**: A.Ps. and G.Ps.
- **Sets**: Idea of sets, universal set, finite and infinite sets, subsets, empty sets and disjoint sets, idea of and notation for union, intersection and complement of sets.
- Positive and Negative integers; Rational numbers, the Four basic operations on rational numbers; the number line.
- Ratio, Proportion, Rates and Taxes.
- **Variation**: Direct, inverse Partial and Joint variations.
- **Percentages**: Simple interest, commission, discount, depreciation. Profit and loss, compound interest and hire purchase.

MAT 012 ALGEBRAIC PROCESSES (2CREDITS) C

- **Algebraic expressions:** Expression of statements in symbols;
- Formulating algebraic expression from given situations; Evaluation of algebraic expressions.
- **Simple operations on algebraic expressions**: Expansion and factorization
- **Solution of linear equations**: Linear equations in one variable; simultaneous linear equations in two variables.
- **Change of subject of a formula and relation**:
- **Quadratic Equations**: Solutions of quadratic equations; Formation of quadratic equations with given roots; Application of solution of quadratic equations in practical problems.
- **Graphs of linear and quadratic functions:** Interpretation of graphs, coordinate points, table of values; Drawing quadratic graphs and obtaining roots from graphs; Graphical solution of pairs of equations of the form y = ax2 + b x + c and y = m x + k. Drawing quadratic equation graphs and obtaining roots from graphs; Drawing tangents to curves to determine gradient at a given point.
- **Linear Inequalities**: Solution of linear inequalities in one variable and representation on the number line. Graphical solution to linear Inequalities in two variables.
- **Algebraic fractions**: Operations on algebraic fractions:

(a) with monomial denominators (simple case only), e.g.

$\frac{1}{X} + \frac{1}{Y} = \frac{x+y}{xy}$ (x $\neq 0$ and $y \neq 0$)

$\frac{1}{x-b} + \frac{1}{x-a} - \frac{2x-a-b}{(x-a)(x-b)}, a, b$ are $consonants$ and $x \neq a$ or b

Values for which a fraction is not defined e.g. is not defined for x = -3

1. Rational Functions: Dividing a polynomial of degree not greater than 3 by a polynomial of lesser degree. Simple partial fractions with denominators of degree not greater than 3.
2. Binary Operations: Properties of closure, commutativity, associativity and distributivity,. Identity and inverse elements.

MATH 013 PURE MATHEMATICS (2 Credits) C

- **Operations**
  - Binary operations - Properties
    - Closure
    - Commutativity
    - Associativity
    - Distributivity
  - The idea of

- Identity elements
- Inverse elements.

- **IDENTIFICATION AND MENSURATION IN `2' AND `3' DIMENSIONS**
  - Length of arcs of circles. Perimeters of sectors and segments. Lengths of chords Angles measured in radians.

    - Areas of sectors and segments of a circle
    - Relationship between the sector of a circle and the surface area of a cone.

  - Surface area and volume of cube, cuboids, cylinder, cone and composite shapes.
    - The surface area and volume of a sphere
    - The earth as a sphere
    - Distance and longitudes

  - Identification 3 dimensions of
    - Perpendicular and places
    - Perpendicular sand planes
    - Angle between as the plane
    - Angle between the plane
- **RECTANGULAR CARTESIAN COORDINATES**
  - Mid-point of a line segment
  - Gradient of a straight line
  - Conditions for parallel and perpendicular lines
  - Distance between 2 points
  - Equation of a line in various forms
  - Intercept
  - Gradient
  - General Cartesian
  - Perpendicular distance
  - Angles between two straight lines
  - Conic section
  - Equation of a circle
  - Equation of a parabola
  - Equation of a hyperbola
  - Equation of an ellipse
- **TRIGONOMETRY**
  - Sine cosine and tangent of acute angles

- Trigonometric ratios of angles 30^0, 45^0, 60^0
- Area of triangle using trigonometric ratios
- Graphs of sine and cosine of angles for $0^0 < x > 360^0$
- Sine rule and cosine rule
- Application to solution of triangles
- Bearing: Distances between objects of points and Angles of elevation and depression

- **INDICES, LOGARITHMS AND SURDS**
  - Laws of indices
    - Theory of logarithms
    - Relationship between indices and logarithms
    - Use of logarithm tables in calculations
    - Change of base in logarithm

  - Surds of the form a and $a\sqrt{b}$

    $\sqrt{b}$

    Where a is rational and b is a positive integer

    The term of a sequence
- **ALGEBRAIC EQUATIONS**
  - Solution of quadratic equation using
    - Factorization
    - Completing the square
    - Formula
    - Symmetric properties of the roots

      $\alpha + \beta = -\frac{b}{a}$ and $\alpha\beta = \frac{c}{a}$
    - Theory of quadratic equation
    - Graphical methods

  - Solution of 2 simultaneous equations where one is linear and the other is quadratic.
- **POYNOMIALS**
  - Addition, subtraction and multiplication of polynomials
  - Factor theorem and remainder theorem
  - Zeros of a polynomial
  - Division of polynomial of degree not exceeding 4 by a polynomial of lesser degree
  - Curve sketching

MATH 014 PURE MATHEMATICS II (2 Credits) C

- **PARTIAL FRACTIONS**

  Resolution of rational functions into partial fractions for the following cases.

  - Distinct linear factors in the denominator
  - Repeated linear factors in the denominator
  - Irreducible quadratic expression.

- **LINEAR INEQUALITIES**
  - Graphical solution of simultaneous linear inequalities in two variables
  - Analytical solution of simultaneous linear and quadratic inequalities
  - Inequalities involving absolute values.
- **LOGIC**
  - Simple true and false statements
  - Negation, converse and contrapositive of statements
  - Antecedents and consequents of statements
  - Compound statements
  - Connectives for statements including symbols
  - Conditional statements.
- **GEOMETRY**
  - Construction of
    - An angle equal to a given angle
    - A line segment divided into a given number of equal parts
    - Triangle and quadrilaterals satisfying certain conditions
  - Relationship between construction and loci
  - Knowledge of the following loci
    - Locus of points equidistant from two lines
    - Locus of points equidistant from two points
    - Locus of points at certain distance from a point
  - Construction of
    - Tangent to a circle from an external point
    - Constant angle locus
    - Construction of locus of point P such as circum-circles, inscribed circles and scribed circles.
- **PLANE GEOMETRY**
  - Deductive proofs of
    - Angle sum of a triangle
    - Parallelograms on the same base and between the same parapets are equal in area

- Application of skills in deductive reasoning in providing the following riders in Euclidean geometry.
  - Angles at a point
  - Angles on parallel lines
  - Intercept theorem
  - Angles in a polygon
  - Extractor angles
  - Congruent triangles
  - Properties of parallelograms
  - Areas of triangles and parallelograms on the same base and between the same parallel lines are equal
  - Similar triangles.
- Deductive proofs of
  - The angle which an arc subtends at the centre is twice the angle which it subtends at the remaining part of the circumference
  - Angles on the same segment are equal
- Proofs of the following riders on Euclidean geometry with respect to circles
  - angles subtended by chords in a circle
  - angles subtended by a chord at the centre
  - Perpendicular bisectors of chords
  - Rectangular property of chords
  - Angle between a tangent and a chord
  - Two tangents from a point to a circle
  - Common tangents to two circles.

- **DIFFERENTIATION AND INTEGRATION**
  - Derivative as a rate of change
  - Differentiation from first principle
- Differentiation of implicit algebraic circular trigonometric and logarithmic functions
- Differentiation of exponential functions
  - Determination of second derivatives
  - Differentiation of a function of function.
- Concept of minimum and maximum of a function
  - Integration as the reverse of differentiation
  - Indefinite integrals solution by:-
    - Substitution
    - Resolution of rational function into partial fractions
    - Parts
  - Definite integral

- Application of definite integral

- **SETS**
  - Idea of a set defined by a property of set notations and their meaning
  - Disjoint sets universal set Venn diagrams and complement of sets.
  - Use of sets and venn diagrams to solve problems
  - Commutative and associative laws
  - Commutative associative and distributive properties of union and intersection of sets
- **MAPPING**
  - Domain and co-domain
  - Differences between mappings and functions
  - Image of mappings and their range.

SECOND SEMESTER

MAT 021 MENSURATION, PLANE GEOMETRY AND TRIGONOMETRY (2Credits) C

- **Mensuration**
  - **Lengths and Perimeters**: Use of Pythagoras theorem, Sine and Cosine Rules to determine lengths and distances; lengths of arcs of circles; perimeters of sectors and segments; latitudes and longitudes
  - **Areas**: Triangles and special quadrilaterals - rectangles, parallelograms and trapezia, circles, sectors and segments of circles; surface areas of cube, cuboid, cylinder, right triangular prism cone and sphere.
  - **Volumes**: Volumes of cubes, cuboids, cylinders, cones, frustrums, right pyramids and spheres. Volumes of similar solids of compound shapes.
- **Plane Geometry**
  - **Angles at a point** : Angles at a point add up to **3600,** adjacent, acute, obtuse, reflex, supplementary and vertically opposite angles.
  - **Angles and intercepts on parallel lines**: Alternate and corresponding angles.
  - Intersecting lines, parallel lines and intercept theorem.
  - Triangles and other polygons - sum of angles and exterior angles of a triangle; congruent triangles; properties of special triangles isosceles, scalene, equilateral, right-angled, use of symmetry where applicable; properties of special quadrilaterals parallelograms; rhombus, rectangle, square, trapezium; properties of similar triangles; sum of angles of a polygon; properties of exterior angles of a polygon; parallelograms on the same base and between the same parallels.

  - **Circles**
    Chords; Angles subtended by an arc at the centre of a circle and at any other point on the remaining part of the circumference of the circle. Angle subtended by a diameter at the circumference of a circle. Angles in the

same segment, Angles in opposite segments: cyclic quadrilateral angles in the alternate segments; perpendicularity of tangent and radius.

- (f) **Construction**
  Bisectors of angles and line segments.
  Line parallel or perpendicular to a given line
  Angles 90°, 60^0. 45°. *30°* copying a given angle. Triangles and quadrilaterals from sufficient data.

- **Loci**
  Loci m 2 dimensions based on geometric principles relating to parallel lines. perpendicular bisectors, angles bisectors and arcs of circles.
  - Knowledge of the loci listed below and their intersections in 2 dimensions:
    a) points at a given distance from a point
    b) points equidistant from two given points
    c) points equidistant from two given straight lines (consider parallel and intersecting lines).
    d) points at a given distance from a given straight line

1. **Coordinate Geometry**
   Mid-point of a line segment; Gradient of a line, distance between two points, conditions for lines to be parallel or perpendicular, Equation of a line in the intercept, gradient and general Catesian forms.

2. **Trigonometry**
   - Trigonometric ratios: sine, cosine and tangent of an angle between 0° and 3600; sine, cosine and tangent of an acute angle; use of tables; trig, ratios of angles 300**,** 45°. 60° without use of tables; Graphs of sine cosine and tanget including application to minimum and maximum for $00 < x < 3600$
   - Applications to angles of elevation and depression, bearing, area and solutions of a triangle, using the sine and cosine formulae/rules.

MAT 022 STATISTICS, PROBABILITY AND DIFFERENTIATION

(2 Credits) C

- **Statistics**
  - Representation of **data** — frequency distribution, histogram. Bar-charts and pie-charts
  - Measures of Location — mean, median and mode for both ungrouped and grouped data. Cumulative frequency curve, median, quartiles, and percentiles.
  - Measures of dispersion - range, interquartile range, mean deviation, variance and standard deviation.
- **Probability**
  - Permutations and Combinations

- Experimental and theoretical probability: Including equally likely events e.g. probability of throwing a six with a fair die, or a head ".hen tossing **a fair** coin: use simple sample spaces.
- Addition of probabilities for mutually exclusive and independent events: **USC** simple sample spaces.
- Multiplication of probabilities for independent e ents: use simple sample spaces

- **Differentiation**
  - Differentiation of simple explicit algebraic and trigonometric functions

MAT 023 **Mechanics** **(2Credits) C**

- **VECTORS**
  - Definition of a scalar
  - Definition of a vector

  - Operations on vectors equality, addition, subtraction and scalar multiplication
  - Properties of vectors
    - Commutative
    - Associative
    - Distributive

  - Parallelogram law of vectors
  - Resolution of vectors
  - Position vectors
  - Composition of vectors
  - Scalar (dot) product and its application.

- **DYNAMIC**
  - Definition of displacement velocity, speed, distance, time and acceleration
  - Composition of:- Constant velocities and variable velocities Relative Velocity
  - Equations of motion

  - Concepts of mass particle and momentum
    - Newton's laws of motion
    - Conservation of linear momentum

- One to one onto identity and constant mappings
- Composition of mapping.

- **FUNCTIONS**
  - Inverse of a function
  - Circular function
- **MATRICES AND DETERMINANTS**
  - Addition of matrices
  - Scalar multiplication of matrices
  - Multiplication of matrices.
    - Determinant as area and volume in `2' and `3' dimensions respectively
    - Application of determinant to areas of triangles and solution to simultaneous linear equations of unknown.
- **CALCULATING AND PROCESSING DEVICES**
  - Calculating devices such as abacus slide rule pocket and desk calculators' computers and mini. Computers.
  - Components of the calculating devices
  - Number system binary, octal decimal and hexadecimal number systems
  - Computer languages programming and simple flow charting.
- **STATICS**
  - Freely failing bodies under gravity, projectiles in one and two dimensions, vertical and horizontal projections only.

- General concepts of statics include forces which are of common occurrence e.g.
  - Resolution of forces
  - Gravitational forces
  - Composition of forces.

- Problems involving resolution and composition of forces

  - Reaction and surface friction
  - moment and equilibrium of forces.
  - Lami's theorem
  - Application of Lami's theorem.

MAT 024 STATISTICS (2 Credits) C

- **GRAPHICAL REPRESENTATION OF DATA**
  - Frequency distribution tables
  - Cumulative frequency tables

- Histogram
- Analysis of data diagram on histogram
- Frequency curves and gives for groped data of equal and unequal intervals.

- **MEASURES OF LOCATION**

  Measures of central tendency mean, mode quarter and percentiles

- **MEASURES OF DISPERSION**

  Determination of
  - Range inter quartile mage and semi interquaritive range from agile
  - Mean deviation variance and standard deviation .
- **CORRELATION**
  - Meaning of correlation
  - Scatter diagrams
  - Types of correlation from scatter diagrams positive negative and zero of correlations
  - Identification of types of correlation
  - Ranking of distribution without ties
  - Rank correlation confinement (spearman's)
  - Degree of correlation and possibility of prediction
- **PROBABILITY**
  - Meaning of probability
  - Relative frequency
  - Calculation of probability using simple sample spaces
  - Addition and multiplication of probabilities
- **PERMUTATIONS AND COMBINATIONS**
  - Meaning of permutation
  - Meaning of combination
  - Differences between permutation and combination
  - Application of permutation and combination to solution of problems
- **PROBABILITY DISTRIBUTION**
  - Binomial Distribution
  - Properties of normal distribution
    - Bell shaped
    - Symmetrical
    - Mean is on the axis of symmetry
    - Continues from negative infinity to positive infinity
  - Standard scores
  - Interpretation of area under the standard normal curve
  - One to one identity and constant mappings

- Composition of mappings

- **FUNCTIONS**
  - Inverse of a function
  - Circular function

- **MATRICES AND DETERMINANTS**
  - Addition of matrices
  - Scalar multiplication of matries
  - Multiplication of matries
  - Determinant as area and volume in `2' and `3' dimensions respectively
  - Application of determinant to areas of triangles and solution to simultaneous lineal equations of 3 unknown.
- **CALCULATING AND PROCESSING DEVICES**
  - Calculating devices such as abacus slide rule, pocket and desk calculators' computers and mini computers.
  - Components of the calculating devices
  - Number system Binary, octal, decimal and hexadecimal number systems
  - Computer languages programming and simple flow charting.

PRE-NCE PHYSICAL EDUCATION

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
PED 011	Foundation of Physical Education	2	C
PED 012	History and Development of Physical Education	2	C
PED 013	Introductory human anatomy, physiology, exercises, nutrition and first aid	2	C
PED 014	Physical Education Practicals I	2	C
		8	

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
PED 021	Theory and Practice of Athletics	3	C
PED 022	physical Education, sports and society	3	C
PED 023	Physical Education practices II	2	C
		8	

COURSE DESCRIPTION

FIRST SEMESTER

PED 011 FOUNDATION OF PHYSICAL EDUCATION (2 CREDITS) C

(i) Sociological and Psychological Foundations of Physical Education
(ii) Principles and Philosophy of Physical Education
(iii) Physical Fitness
(iv) Health and Personal Hygiene
Importance of health in P.E
(a) Care of the body
(b) Sports' wears

(v) Recreation
- (a) Definition and importance
- (b) Types of recreation:
  - (i) Indoor
  - (ii) Outdoor

(vi) Recreational activities:
Walking, jogging, swimming, cycling, playing musical instruments and dancing, table tennis, camping etc.

(vii) Difference between recreational activities and life time sports

(viii) Competitive Sports
- (a) Types of Competitive Sports:
  Intramural activities
- (b) Extramural activities
- (c) Athletics/Sports

(ix) Corrective and Adaptive Programme
Types of physical handicap
Remedial Exercises
Social and Emotional problems of the handicapped.

(x) Concept of the whole man

PED 012 HISTORY AND DEVELOPMENT OF PHYSICAL EDUCATION (2 CREDITS) C

I. Historical Background
- (a) Changes in concept of P.E
- (b) Sports and Culture
- (c) Development of P.E and Sports in Nigeria and West Africa
- (d) Contribution of the pioneers of P.E and Sports in West Africa

II. The Greek Gaines and Modern Olympics
- (a) Greek Festivals:
- (b) Isthmian, Pythian and Nemean
- (c) Olympic Games'
- (d) The Modem Olympic Games

III. National and International Competitions

(i) National Championship and Sports Festivals
- (a) Types of National Championships:
  - (i) Championships organized by different sports associations;
  - (ii) Championships organized by National Schools Sports Federation (NSSF).
- (b) National Sports Festival
- (c) Institutional Sports Festival
- (d) Africa Games

(e) Evolution of Africa Games:
  (i) Baron Pierre de Coubcrtins's contribution *(1925* - 29);
  (ii) First All Africa Games in Congo Brazaville *(1965);*
  (iii) Second All Africa Games in Lagos, Nigeria(1973);
  (iv) Third All Africa Games, in Algiers, Algeria(1978).

(f) International Sports Governing Bodies:
Supreme Council for Sports in Africa (SCSA);
ECO WAS Games; WAUG, FASU, FISU, IOC, FIFA.
IAAF, FIBA, MBA, FIVB, FIG, WAFU, IHF, FINA etc.

NB: The headquarter membership and functions of SCSA and membership, structure and functions of the other governing bodies should be treated.

(i) World Secondary Schools Soccer Competition
(ii) International Schools Sports Federation (ISSF)
* their importance should be treated.

PED 013 INTRODUCTORY HUMAN ANATOMY, PHYSIOLOGY, EXERCISES, NUTRITION AND FIRST AID (2 CREDITS) C

I. Skeletal System
(a) Main parts and functions of the human skeleton
(b) Bones and joints involved in movement

II. Muscles
(a) Major muscles of the body
(b) Muscle contractions (Isometric and isotonic contractions)

III. Somatotype: Endomorphy. Mesomorphy and ectomorphy

IV. Posture
(a) Good Posture
(b) Postural Defects: Kvphosis. Scoliosis. Lordosis and Flat foot

V. Nervous System
the brain, spinal cord, nerves and their functions

VI. Circulatory System
(a) The heart: Structure and function (discuss the behaviour of heart before and after physical exercise).
(b) The blood vessels: veins and arteries: systolic and diastolic blood pressures. Differences between pulmonary vein and pulmonary artery in relation to oxygenated and deoxygenated blood should be emphasized.
(c) Pulse rate: Effect of exercise on pulse rate.

VII. Respiratory System

(a) Respiratory organs
Internal and External Respiration

(b) Aerobic and Anaerobic Respiration i.e. mechanism of respiration.

VIII. Hormones: Adrenalin - Discuss effects of under secretion and over secretion: students should be able to state the effects of changes in normal level during exercise.

IX. Excretory system:

(a) Structure and functions of kidney

(b) Process of urine formation

X. Nutrition

(a) Balanced and unbalanced diets

(b) Dietary consideration

(c) Pre-game Nutrition

XI. Basic Principles of First Aid

(a) Sports injuries:- bleeding, sprain, dislocation, strains, fracture, bruises, cramps and muscle pull.

(b) First Aid and First Aid Box

(c) Special conditions and situations that require First Aid:- Heat stroke, heat exhaustion, drowning, shock, fainting, muscle fatigue.

(d) Artificial Respiration

(e) Safety precautions.

PED 014 PHYSICAL EDUCATION PRACTICAL I (2 CREDITS) C

6 hours of practical works made up of three 2- hour sessions per week to cover topics in courses PED 011 and PED13.

SECOND SEMESTER

PED 021 THEORY AND PRACTICE OF ATHLETICS (3 CREDITS) C

I. Principles of lever system as applied to movement: first, second and third order levers - students should be able to define and describe the simple laws governing the mechanics of motion and be able to give specific examples of movements where these laws are applicable.

II. Principles involved in:
Gravity, work, velocity, balance, angle of trajectory.

III. Application of the principles (inland II above) to game situations.

IV. Theory and practice of Athletics: Track and Field Events

(a) Track Events

i) Short distance races (sprints) – start, race and finish; sprint start: bullet/bunch, medium and elongated.

ii) Relay races:- visual and non-visual types of baton take-over and take-over zone.

iii) Hurdling events (high and low). Middle (800m, l,500m) and long (3000m and above) distance races:- phases of running and strategies. rules and regulations, and officiating.

(b) Field Events

(i) Throwing Events:- discus, javelin and shot put (techniques and rules involved in these events).

(ii) Jumps:- High jump. Long jump. Triple jump and Pole vault:- equipment and specifications, techniques. rules and regulations, officiating.

VII. Theory and Practice of Games

Ball games:— basketball, handball, soccer**,** volleyball, hockey - specifications of courts and pitches, types of equipment used, skills involved in each game, team formations and playing strategies, functions of the various formations of the games, rules and regulations of each game, Officiating

Racket Games:_ table tennis, tennis, Badminton - specification of Courts of all the games, types of equipment, basic skills involved in each game, tactics and strategies, rules and regulations officiating.

VIII. Theory and Practice of Educational/Traditional Gymnastics

(i) Mat work: Hand Spring and head spring combinations e.g. Fly spring followed by forward roll, backward roll followed by head spring, flip flap and Arab spring, back spring, front and back somersault, neck spring.

(ii) Box and Buck work: Astride vaults, through vaults, neck Spring astride vaults, long arm over swing, forward roll followed by short arm over Swing.

PED 022 PHYSICAL EDUCATION, SPORTS AND SOCIETY (3 CREDITS) C

(I) Sports and Society

(a) Unity through sports - essence of team work, leadership and Co-operation in sports and games.

(b) Sports and Politics - national and international Sports participation and their promotion of understanding, nationalism and patriotism

(c) Violence in Sports:

(1) Causes of violence:- poor officiating, poor sportsmanship, unbridled fanaticism, nationalism, ignorance of rules.

(2) Prevention of violence

(d) Crowd Control Methods of Crowd Control:- Provision of Spectator barriers, presence of law enforcement agents: appropriate information flow.

(11) Feminity and Sports

(a) Feminity and participation in sports
(b) Reproduction in women and sports
(c) Sex and its effect on performance in sports

(III) Drug Education

(f) Classification of drugs:- Stimulants, narcotics hallucinogen sedatives; Ergogenic aids should be emphasized.
(g) Effects of drugs on performance in sports - Drug abuse and drug tests in sports competition should be treated.

PED 023 PHYSICAL EDUCATION PRACTICAL II (2 CREDITS)

The practical works are to cover mainly topics in PED 021 and 022 and also topics in courses PED 011 to 013 not yet covered in PED 014.

PRE-NCE PHYSICS

COURSE OUTLINE

FIRST SEMESTER

S/N	COURSE CODE	COURSE TITLE	CREDITS	UNIT
1	**Phy 011**	Measurements, mechanics and properties of matter 1	2	C
2	**Phy 012**	Waves	2	C
3	Phy 013	Heat	2	C
4	Phy 014	Practical physics	2	C
			8	**C**

SECOND SEMESTER

S/N	COURSE CODE	COURSE TITLE	CREDITS	UNIT
1	Phy 021	Mechanics and properties of matter II	2	C
2	Phy 022	Electrostatics and Electricity	2	C
3	Phy 023	Magnetism and Electromagnetic	2	C
4	Phy 024	Practical physics II	2	C
			8	**C**

COURSE DESCRIPTION

FIRST SEMESTER

PHY O11 MEASUREMENTS, MECHANICS AND PROPERTIES OF MATTER I (2 CREDITS) C

i) **Length, Area and Volume:**
- Metre rule,
- Venier calipers Micrometer Screw-guage

ii) Mass:
- Unit of Mass
- Use of simple beam balance

iii) Time
- Unit of time
- Time-measuring devices

iv) Fundamental physical quantities

v) Derived physical quantities and their units
- Combinations of fundamental quantities and determination of their units

vi) Dimensions
- Definition of dimensions

- Simple examples

vii) Limitations of experimental measurements

- Accuracy of measuring instruments
- Simple estimation of errors
- Significant figures
- Standard form

B. Scalars and Vectors

- Definition of scalar and vector quantities
- Examples of scalar and vector quantities
- Relative velocity
- Resolution of vectors into two perpendicular directions including graphical methods of solution.

C. Motion

i) Types of motion:

- Translational
- Oscillatory
- Rotational
- Spin and random

ii) Linear motion

- Speed, velocity and acceleration
- Equation of uniformly accelerated motion
- Motion under gravity
- Distance- time graph and velocity time graph
- Instantaneous velocity and acceleration

iii) Projectiles

- Calculation of range, maximum height and time of flight
- Applications of projectile motion

D. Gravitational field

- Newton's law of universal gravitation
- Gravitational potential
- Conservative and non-conservative fields
- Acceleration due to gravity

$$\left[g = \frac{GM}{R} \right]$$

- Variation of g on the earth's surface
- Distinction between mass and weight
- Escape velocity
- Parking orbit and weightlessness

E. Equilibrium of forces

(a) Equilibrium of particles:
i. equilibrium of coplanar forces
ii. triangles and polygon of forces
iii. Lami's theorem

(b) Principles of moment
(i) Moment of a force
(ii) Simple treatment and moment of a couple (torgue)
(iii) applications

(c) Conditions for equilibrium of rigid bodies under the action of parallel and non parallel forces
(i) Resolution and composition of forces in two perpendicular directions
(ii) Resultrant and equilibrant

(d) Centre of gravity and stability
(i)Stable, unstable and neutral equilibrate

F. Simple Machines
- Definition of machine
- Types of machines
- Mechanical advantage, velocity ratio and efficiency of machines

PHY 012 WAVES (2 CREDITS) C

i) Production and propagation
- Wave motion
- Vibrating systems as source of waves
- Waves as mode of energy transfer
- Distinction between particle motion and wave motion
- Relationship between frequency, wavelength and wave velocity ($V=f\lambda$)
- Phase difference
- Progressive wave equation e.g. $y = A \sin \frac{2\pi}{\lambda}(vt + \frac{x}{\lambda})$

ii) Classification
- Types of waves; mechanical and electromagnetic waves
- Longitudinal and transverse waves
- Stationary and progressive waves
- Examples of waves from springs, ropes, stretched strings and the ripples tank

iii) Characteristics/Properties
- Reflection, refractions, diffractions and plane Polarization
- Superposition of waves e.g. interference

B. Propagation of Sound Waves

- The necessity for a material medium
- Speed of sound in solids, liquids and air
- Reflection of sound; echoes, reverberation and their applications
- Disadvantages of echoes and reverberations

C. Characteristics of Sound Waves

- Noise and musical notes
- Quality, pitch, intensity and loudness and their application to musical instruments
- Simple treatment of overtones produced by vibrating strings and their columns

$$F = \frac{I}{2L}\sqrt{\frac{T}{m}}$$

  - Acoustic examples of resonance
  - Frequency of a note emitted by air columns in closed and open pipes in relation to their lengths

D. Light Energy

i) Source of Light
- Natural and artificial source of light
- Luminous and non-luminous objects

ii) Propagation of light
- Speed, frequency and wavelength of light
- Formation of shadows and eclipse
- The pin-hole camera

E. Reflection of Light at Plane and Curved Surfaces

- Laws of reflection
- Application of reflection of light
- Formation of images by plane, concave and convex mirrors and ray diagrams
- Use of the mirror formula

$$\frac{1}{F} = \frac{1}{U} + \frac{1.}{V}$$

- Linear magnification

F. Refraction of Light Through

i) Plane and Curve Surface
- Explanation of refraction in terms of velocity of light in the media
- Laws of refraction
- Definition of refractive index of a medium
- Determination of refractive index of glass and liquid using Snell's law
- Real and apparent depth and lateral displacement
- Critical angle and total internal reflection

ii) Glass Prism

- Use of the minimum deviation formula
-

$$U = \frac{\sin\left[\frac{A+D}{2}\right]}{\sin\left[\frac{A}{2}\right]}$$

- Type of lenses
- Use of lens formula

$$\left[\frac{1}{F} = \frac{1}{u} + \frac{1}{v}\right]$$

- Magnification

G. Optical Instruments

- The principles of microscopes, telescopes, projections, cameras and the human eye (physiological details of the eye are not required)
- Power of a lens
- Angular magnification
- Near and far points
- Sight defects and their corrections

H. (i) Dispersion of light and colours

- Dispersion of white light by a triangular prism
- Production of pure spectrum
- Colour mixing by addition and subtraction
- Colour of objects and colour filters

(ii) Electgromagnetic spectrum

- Description of sources and uses of various types of radiation.

PHY 013 HEAT (2 CREDITS) C

i) Temperature and its Measurement

- Concept of temperature
- Thermometric properties
- Calibration of thermometers
- Temperature scales – Celsius and Kelvin
- Types of thermometers
- Conversion from one scale of temperature to another

B. Thermal Expansion

i) Solids

- Definition and determination of linear, volume and area expansivities
- Effects and applications, e.g. expansion in building strips and railway lines
- Relationship between different expansivities

ii) Liquids

- Volume expansivity
- Real and apparent expansivities
- Determination of volume expansivity
- Anomalous expansion of water

C. Gas Laws

- Boyle's law (PV = Constant)
- Charle's law ($\frac{V}{P}$ = constant)
- Pressure law ($\frac{P}{T}$ = constant)
- Absolute zero of temperature
- General gas equation ($\frac{PV}{T}$ = constant
- Ideal gas equation (Pv = nRT)

D. Quantity of Heat

- Heat as a form of energy
- Definition of heat capacity and specific heat capacity of solids and liquids
- Determination of heat capacity and specific heat capacity of substances by simple methods e.g. method of mixtures and electrical method

E. Change of State

- Latent heat
- Specific latent heats of fusion and vaporization
- Melting, evaporation and boiling
- The influence of pressure and of dissolved substances on boiling and melting points.
- application in appliances

F. Vapours

- Unsaturated and saturated vapours
- Relationship between saturated vapour pressure (SVP) and boiling
- Determination of SVP by barometer tube method
- Formation of dew, mist, fog, and rain
- Study of dew point, humidity and relative
- Hygrometry; estimation of the humidity of the atmosphere using wet and dry bulb hygrometers

G. Structure of matter and kinetic theory

i) Molecular nature of matter

- Atoms and molecules
- Molecular theory: explanation of Brownian motion, diffusion, surface tension, capillarity, adhesion, cohesion and angles of contact.
- Examples and applications

ii) Kinetic Theory

- Assumptions of the kinetic theory
- Using the theory to explain the pressure exerted by gas, Boyle's, law, Charl's law, melting, boiling, vapourization, change in temperature evaporation, etc.

H. Heat Transfer

- Conduction, convention and radiation as modes of heat transfer
- Temperature gradient, thermal conductivity and heat flux
- Effect of the nature of the surface on the energy radiated and absorbed by it.
- The conductivities of common materials
- The thermos flask
- Land and sea breeze

PHY 014 PRACTICAL PHYSICS (2 CREDITS) C

Practical work in topics covered by PHY 011, 012 and 013. At least 10 practicals are to be covered for the semester.

SECOND SEMESTER

PHY 021 MECHANICS AND PROPERTIES OF MATTER II (2 CREDITS)

i) Newtons laws of motion:

(i) Inertia, mass and force
(ii) Relationship between mass and acceleration
(iii) Impulse and momentum
(iv) Conservation of linear momentum (coefficient of restitution not necessary)

ii) Motion in a circle

(i) Angular velocity and angular acceleration
(ii) Centripetal and centrifugal forces
(iii) Applications

iii) Simple harmonic motion

(i) Definition and explanation of simple harmonic mortion
(ii) Examples of systems that execute S.H.M
(iii) Velocity and acceleration of S.H.M.
(iv) Energy charge in S.H.M

iv) Work Energy and Power

- Definition of work, energy and power
- Forms of energy
- Conservation of energy
- Qualitative treatment between different forms of energy
- Interpretation of area under the force-distance curve

v) Friction

- Static and dynamic friction
- Coefficient of limiting friction and its determination
- Advantages and disadvantages of friction
- Reduction of friction
- Qualitative treatment of viscosity and terminal viscosity
- Stoke's law

vi) Elasticity

- Elasticity limit, yield point, breaking point, Hooke's law and Young's modulus
- The spring balance as a device for measuring force
- Work done in springs and elastic strings

vii) Pressure

a) Atmospheric Pressure

- Definition of atmospheric pressure
- Units of pressure (S.I) units
- Measurement of pressure
- Simple mercury barometer, aneroid barometer and manometer.
- Variation of pressure with height
- The use of barometer as an altimeter

b) Pressure in liquids

- The relationship between pressure, depth and density (P = pgh)
- Transmission of pressure in liquids (Pascal's Principle)
- Application

c) Liquids at Rest

- Determination of density of solid and liquids
- Definition of relative density
- Upthrust on a body immersed in liquid
- Archimede's principle and law of floatation and applications, e.g. ships and hydrometers.

PHY 022 ELECTROSTATICS AND CURRENT ELECTRICITY (2CREDITS) C

a) Electrostatics

- Existence of positive and negative charges in matter
- Charging a body by friction, contact and induction
- Electroscope

- Coulomb's inverse square law electric field and potential
- Electric field and potential
- Electric discharge and lightning

b) Capacitors

- Functions of capacitors
- Parallel plate capacitors
- The relationship between the plates

$$\left[C = \frac{3A}{d} \right]$$

- Capacitors in series and parallel
- Energy stored in a capacitor

c) Electric Cells

- Simple voltaic cell and its defects;
- Daniel cell, Laclanche cell (wet and dry)
- Lead – acid accumulator and Nickel-Iron (Nife) Lithium lon and Mercury
- Maintenance of cells and batteries (detail treatment of the chemistry of a cell is not required
- Arrangement

d) Current electricity

- Electromagnetic force (emf), potential difference (pd), current, internal resistance of a cell lost Volt
- Ohm's law
- Measurement of resistance
- Meter bridge
- Resistance in series and in parallel and their combination
- The potentiometer method of measurement emf, current and internal resistance of a cell.

e) Electrical Energy and Power

- Concepts of electrical energy and power
- Commercial unit of electric energy and power
- Electric power transmission
- Heating effects of electric current

PHY 023 MAGNETISM, ELECTROMAGNETIC INDUCTION AND INTRODUCTORY ELEMENTARY MODERN PHYSICS (2CREDITS) C

i) Magnets and Magnetic Fields

- Natural and artificial magnets
- Magnetic properties of soft iron and steel
- Methods of making magnets and demagnetization
- Concept of magnetic field
- Magnetic field of a permanent magnet

- Magnetic field round a straight current carrying conductor, circular wire and solenoid
- Properties of the earth's magnetic field; north and south poles, magnetic meridian and angel of dip and declination
- Flux and flux density
- Variation of magnetic field intensity over the earth's surface
- Applications: earth's magnetic field in navigation and mineral exploration.

ii) Force on a Current-Carrying Conductor in a Magnetic Field

- Quantitative treatment of force between two parallel current-carrying conductors
- Force on a charge moving magnetic field
- The d.c. motor
- Electromagnets
- Carbon microphone
- Moving coil and moving iron instruments
- Conversion of galvanometers to ammeters and voltmeter using shunts and multipliers

iii) Electromagnetic Induction

- Faraday's law of electromagnetic induction
- Factors affecting induced emf
- Lenz's law as an illustration of the principle of conservation of energy
- A.C. and dc generators
- Transformers
- The induction coil

b. Inductance

- Explanation of inductance
- Unit of inductance
- Energy stored in an inductor

$$E = \frac{.1}{2} 1^2 L$$

- Application/uses of inductors

c. Eddy Current

- Reduction of eddy current
- Applications of eddy current

d. Simple A.C. Circuits

- Explanation of a.c. current and voltage
- Peak and r.m.s. values
- a.c. source connected to a resistor
- a.c. source connected to a capacitor- capacitive reactance
- a.c. source connected to an inductor-inductive reactance capacitive connected to an inductor
- series R-L-C circuits
- vector diagram

- reactance and impedance of alternative quantities
- effective voltage in an R-L-C circuits
- resonance and resonance frequency

  $F_0 = \left[\frac{1}{2\pi\sqrt{LC}}\right]$

e. Conduction of Electricity Through:

i) Liquids

- Electrolytes and non-electrolyte
- Concept of electrolysis
- Faraday's law of electrolysis
- Application of electrolysis, e.g. electroplating, calibration of ammeter etc.

ii) Gases

- Discharge through gases (quantitative treatment)
- Application of conduction of electricity through gases.

f. Elementary Modern Physics

- Models of the atom and their limitation
- Elementary structure of the atom
- Energy levels and spectra
- Themionic and photoelectric emissions
- Einstein's equation and stoping potential
- Applications of themionic emissions and photoelectric effects
- Simple method of production of x-rays
- Properties and applications of alpha, beta and gamma rays
- Half-life and decay constant
- Simple ideas of production of energy by fusion and fission
- Binding energy, mass defect and Einstein's Energy equation
- Wave-particle paradox (duality of matter)
  $[\Delta \in = \Delta M c^2]$
- Electron diffraction
- The uncertainty principle

Introductory Electronics

- Distinction between metals semiconductors and insulators (elementary knowledge of band gap is required)
- Intrinsic and extrinsic semi-conductors;
- Uses of semiconductors and diodes in rectification and transistors in amplification
- n-type and p-type semi-conductors
- elementary knowledge of diodes and transistors
- use of semiconductors and diodes in rectification and transistors in amplifications

PHY 024 PRACTICAL PHYSICS II (2 Credits) C

Practical works on topics covered in courses PHY 021, 022 and 023. At least 10 experiments for the semester

PRE-NCE AGRICULTURAL EDUCATION

COURSE OUTLINE

FIRST SEMESTER

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	UNIT
1	AGE 011	Basic Concepts and Issues in Agriculture	2	C
2	AGE 012	Introduction to the Study of Soil	2	C
3	AGE 013	Plant Biology	2	C
4	AGE 014	Elements of Crop Production	2	C
			8	**C**

SECOND SEMESTER

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	UNIT
1	AGE 021	Introduction to livestock science	2	C
2	AGE 022	Livestock Management	2	C
3	AGE 023	Factors of Agricultural Production	2	C
4	AGE 024	Surveying and Farmstead	2	C
			8	**C**

COURSE DESCRIPTION
FIRST SEMESTER

AGE 011 Basic Concepts and Issues in Agricultural Science (2 Credits) C

- Meaning and Scope of Agriculture
  - Branches of Agriculture
- Importance of Agriculture e.g. provision of raw materials, employment and rural development, etc.
- Agriculture Ecology
  - Ecological zones of west Africa
  - Agricultural products of each ecological zones
  - Environment factors and their effects on crop and livestock production
- Genetics
  - First and second laws of Mendel
  - Cell division
  - Dominance and recessiveness
- Farm Inputs: e.g. planting materials, agrochemicals, etc.
- History of Agricultural Development in West Africa
  - Agricultural systems e.g. shifting cultivation, subsistence farming e.t.c.
  - Evolution of national research institutes e.g. NCRI, IAR, IAR&T, CRIN, NIFOR, FRIN, RRi, NRCRI, NIHORT, LCRI, etc. and international research

institutes e.g. IITA, ILRI, ICRISAT, WARDA etc. leading to increased application of science to the development of agriculture.
- Agricultural Development Project (ADPs) e.g. RTEP, FERDAMA programmes.
- National Agricultural Programme such as OFN, NAFPP, NALDA, Green Revolution, NCRPs, NARP, Project Coordinating Unit (CPU) etc.
- Roles of NGOs in agricultural development

- **Role of Government in Agricultural Development**
  - Development of fiscal policies favourable to agricultural production e.g. import duties ban on importation, etc.
  - Government programmes aimed at agricultural development e.g. subsidies, credit facilities, etc.
  - Provisions of infrastructures e.g. transport systems, communication systems, etc.

AGE 012 Introduction to the Study of Soils (2 Credits) C

- Rocks and Soil Formation
  - Factors affecting rock weathering and soil formation
  - Soil profile, soil texture and structure, soil acidity and structure
- Soil Water and Soil Conservation
  - Soil water: its importance, sources, movement management and conservation
  - Soil conservation, leaching, erosion, importance, causes, prevention and control, cropping, burning, oxidation of organic matter and their effects on plant nutrients in the soil.
  - Irrigation and drainage methods
- Soil Fertility
  - Macro and micro-nutrients and their roles in plant nutrition: Carbon and nitrogen cycles
  - The living population of the soil (flora and fauna),and their roles in soil fertility
  - Maintenance of soil fertility: methods of maintaining soil fertility e.g. use of cover crops, application of organic manures etc.
  - Nutrient efficiency symptoms e.g. chorosis, sickle leaves, stunting apical necrosis etc.
- Land Preparation and Soil Tillage
  - Principles and practices of land preparation and soil tillage
  - Factors affecting choice of tillage methods: zero tillage, minimum tillage, etc.

AGE 013 Plant Biology (2 Credits) C

- Plant Forms and Functions
  - Parts of monocot and dicot plants and their function
  - The anatomy and morphology of the storage organs of the common crop plants
- Growth, Development and Reproduction
  - Gametogenesis
  - Pollination
  - Fertilization
  - Embryo formation and development
- Plant Propagation and Methods
  - Sexual: the use of seeds, seed viability, viability test, seed rate and seed germination

- Asexual vegetative propagation) e.g. cutting, budding, grafting, layering, etc.
- Nursery and nursery management

- Cropping System, Planting Patterns and Plant Densities
  - Cropping system: Mono-cropping, mix-multiple-inter-, relay-, strip- and rotational cropping
  - Planting patterns: Broadcasting, row spacing and drilling.
  - Plant densities: single, double and multiple stands.
- Cropping Husbandry
  - Common and scientific names, gross morphology, anatomy of storage organs, methods of propagation, husbandry practices, harvesting, processing and storage, common disease and pests, economic importance of the following groups of crops.
    Group 1: Cereals – Maize, guinea corn, rice
    Group 2: Tubers – Yam, cassava, sweet potatoes
    Group 3: Legumes – cowpea, groundnut, and soya-bean
    Group4: Vegetables and Spices – tomatoes, egg plant, peper, union, okro, cabbage, *amarranthus sp.*
    Group 5: Fruits – citrus, pineapple, pawpaw
    Group 6: Beverages – cocoa, kola, coffee
    Group 7: Oils – Oil palm, coconut, shear-butter
    Group 8: Latex – para rubber
    Group 9: Fibres – jute, cotton sisal hemp
    Group 10: Sugars- sugarcane, beet

AGE 014 Elements of Crop Production (2Credits) C

- **Pasture and Forage Crops**
  - Study of gross morphology, methods of propagation and husbandry of common grasses and legume, and establishment, maintenance, conservation and uses of pastures
  - Study f natural grasslands and their distribution in West Africa
  - Range management
- **Floriculture**
  - Establishment, maintenance and uses of ornamental trees, shrubs and flowers
- **Weeds**
  - Gross morphology, methods of reproduction, dispersal and control of weeds
  - Weed control methods – weeding, mulching, cover cropping, tillage, herbicides and trap cropping.
- **Crop Diseases**
  - Identification of disease – causing organisms both in store and in the field.
    A simple account of diseases caused by fungi, bacteria, nematodes and viruses; the nature of the damage, methods of transmission and common methods of control.
- **Crop pest**
  - General account of pests of agricultural plants both in the field and in the store, their types, importance, principles and methods of prevention and control

- Life cycles of: biting insects e.g. grasshopper; boring insects e.g. weevil; sucking insects e.g. aphids and cotton strainer.

- **Forests management (Silviculture)**
  - Importance: source of wood, pulp, fibre and forest products
  - Conservation: regulation, exploitation, regeneration, afforestation, agroforestry and taungya system
- **Crop Improvement**

  Methods of crop improvement e.g. introduction, selection, crossing, quarantine etc.

SECOND SEMESTER

AGE 021 Introduction to Livestock Science (2 Credits) C

- **Forms and Classification of Major Animals in West Africa**
  - Species, breeds and distribution
  - External features of cattle, sheep, goat, pig, rabbit and poultry
- **General terminology in animal production**
  - Common terms used in animal husbandry, e.g. calving, kidding, castrate, capon, veal, mutton, etc.
- **Anatomy and physiology of farm animal**
  - Functions of tissues and organs of farm animals
  - Animal body system e.g. digestive (ruminants and non-ruminant), reproductive, respiratory, urinary (excretory) and nervous system
- Reproduction in Farm Animal
  - Gametogensis, oestrus cycle, signs of heat and heat periods, secondary sexual characters, gestation periods, parturition and the role of hormones in reproduction.
  - Development, nourishment and birth of young, mammary-gland and lactation in farm animals.
  - Egg formation and incubation in poultry
- Animal Nutrition
  - Feed nutrients and function
  - Feeds and feeding: simple ration formulation – balanced ration, common pasture/forage crops e.g. guinea grass, elephant grass, giant star grass. Andropogan sp, calogonium sp, Hay and silage preparation, different types of rations, namely maintenance ration and production ration.
  - Nutrient deficiencies: causes and symptoms of malnutrition and their correction in farm animals.

AGE 022 Livestock management (2 Credits) C

Housing, feeding, sanitation and veterinary care of ruminants, pigs, rabbits and poultry under intensive, semi-intensive and extensive systems of management from birth to slaughter

- **Animal Health**
  - Animal diseases (pathology)

- Environmental factors predisposing animals to diseases; casual organisms, symptoms, transmission and effects
- Preventive and curative methods for diseases caused by viruses, bacteria, fungi and protozoa

- Parasites (parasitology)
  - Life cycles and economic importance of livestock parasites e.g. endoparasites, ectoparasites and diseases vectors
  - Prevention and control

- **Fisheries and Wildlife**
  - Fish culture systems Common types of fisheries e.g. Tilapia, Catfish, etc.
    - Extensive systems: inland and deep sea fishing, lakes and rivers.
    - Semi-intensive systems: dams
    - Intensive systems: fish pond – Factors to consider in pond, establishment and pond management e.g. fertilization, liming and silting.
  - Fish harvesting and processing methods
    - Use of drag nets, hook and line, etc.
    - Curing, sun-drying and smoking
    - Fishery regulations
  - Wildlife management:- Habit conservation, feeding, domestication, harvesting, processing and wildlife regulations.
- **Animal Improvement:-** methods of animal improvement e.g. introduction, breeding, quarantine and selection: Breeding system – inbreeding, line-breeding, cross-breeding, artificial insemination

AGE 023 Agricultural Economics and Extension (2 Credits) C

- **Factors of Agricultural Production**
  - Land
  - Labour
  - Capital
  - Management
- **Basic Economic Principles**
  - Demand and supply
  - Production function: input/output, output/input, input/output relationship; stages of production, concepts of diminishing returns, scale of preference and choice
- Characteristics features of Agricultural Production
  - Smallness of farm holdings: biological limits of farm production and susceptibility of seasonality of farm productions, price elasticity in demand and supply of agricultural produce.
- **Labour Management**
  - Labour relations: supervision, etc.
  - Types of labour: permanent labour etc.
  - National Labour laws and regulations
- **Farm Management**
  - Qualities, functions and problems of farm manager

- Records and record-keeping: Types and importance of record-keeping – livestock records profit and loss account book.
- Stock evaluation, gross and net profits in farm management

- **Marketing of Agricultural Produce.**
  - Importance of Marketing
  - Marketing channels
  - Characteristic features of agricultural product affecting their marketing.
- **Processing and storage**
  - Processing: traditional and modern methods of food processing e.g. gari, rice and groundnut processing, etc.
    storage
- **Agricultural Extension**
  - Meaning and importance
  - The role of Agricultural Development Programmes, universities, research institutes and farms'' organizations (Corporative Societies)
  - Extension methods including demonstration plots, use of visual aids, mass media, etc.
  - Problems of Agricultural extension in West Africa and possible solutions.

AGE 024 Rudiments of Farm Mechanism (2 Credits) C

- **Surveying and Farmstead Planning**
  - Meaning and importance
  - Common survey equipment, their uses and care
  - Principles of farmstead outlay
- **Simple farm tools**
- **Farm Machinery**
  - Types e.g. ploughs, harrows, etc.
  - Uses and maintenance of arm machinery
- **Mechanization and sources of farm machinery**
  - Sources of farm power: e.g. animal and machines
  - Advantages and disadvantages of mechanization of agriculture
  - Problems and prospects of mechanized agriculture in west Africa
- **introduction to biotechnology**
  - basic terms, e.g. tissue, culture, another culture and genetic engineering
- **computers in Agriculture**
  - features of computers
  - Uses of computers in agriculture: disease and weather forecasting ration formulation, database and simulation studies, etc.
- **introduction to agricultural research and statistics**
  - Basic concepts in agricultural experiment.
  - Interpretation of results, e.g. measures of central tendency and experimental errors.

HOME ECONOMICS

COURSE OUTLINE

First Semester

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	UNIT
1	HEC 011	Introduction to Home Economics	2	C
2	HEC 012	Principles of Home Management	3	C
3	HEC 013	Family Life Education	3	
			8	**C**

SECOND SEMESTER

S/N	COURSE CODE	COURSE OUTLINE	CREDITS	UNIT
1	HEC 021	Food and Nutrition	2	C
2	HEC 022	Clothing and Textile	2	C
3	HEC 023	Home Management	2	C
4	HEC 024	Careers in Home Economics	2	C
			8	**C**

COURSE DESCRIPTION
FIRST SEMESTER

HEC 011 Introduction to Home Economics (2 Credits) C

- Philosophy and Objectives of Home Economics
- Meaning, Scope and Importance of Home Economics
- Quality of Home Economics teacher,
- Roles of Home Economics teacher,
- Teacher/student relationship in home Economics class,
- Relationship of home economics teacher to the community,
- Interrelationship of home economics with other subjects i.e. Biology, Geography, Chemistry, Agricultural Science and Fine and Applied Arts

a. Home Economics

i) Meaning, scope and importance of Home Economics
ii) Objectives and Ideals of Home Economics

HEC 012 Principles of Home Management (3 Credits) C

a. Home management

i) Meaning of Home Management
ii) Steps in the management process
iii) Decision-making: meaning and process
iv) Motivation for home management e.g. goals values, standards and needs

b. Resources

i) Human Resource

- Time management; definition/types
- Types of work-time
- Factors influencing the use of time
- Advantages of time management
- Energy, definition and reasons for energy management
- Work simplification – its purpose
- Guidelines for work simplification and time saving gadgets

ii) Material Resource: Definition/types

- Money management
- Meaning and types of income
- Principles of money management
- Household budgeting; steps in making a budget
- Economic security of the family
- Bank accounts
- Traditional savings, building societies and insurance

iii) Consumer Education

- Meaning and importance of consumer education
- Definition and types of market
- Distributors or consumer agents
- Sources of consumer information
- Purchasing practices
- Advertising
- Consumer rights and responsibilities

HEC 013 FAMILY LIFE EDUCATION (3 Credits) C

a. Family Living

i) Definition and types of family

- Advantages and disadvantages of family types
- Role of a family life cycle

ii) Family relationships

- Husband/wife relationship, parent/child relationship, brother/sister or sibling relationship
- Factors that influence family relationship

iii) Basic Personality profiles

- Meaning of personality
- Extroversion, introversion and Anxiety/stability
- Adolescents and their problems

iv) Family crises

b. Marriage/Sex Education

- Meaning of marriage
- Boy/Girl relationship
- Courtship

- Factors to consider when choosing a partner
- Prepare for marriage
- Meaning and purpose of engagement
- Types of marriage; Islamic, Christian, Court and Traditional
- Planning a family

c. Pregnancy and Childbirth

i) Menstruation, pregnancy and childbirth, labour and delivery and post-natal care

ii) Childcare, baby's layette care of the baby, bathing, feeding etc.

iii) Care of toddlers: common ailments in children immunizations

iv) Child development: stages, social and emotional; Good habits and character training

v) Play and play materials

d. Safety and Hygiene

i) Common accidents in the home

- Cause of accidents in the home preventive measures

ii) First Aid; definition/components of a first aid kit

- Simple first for burns, scalds, cuts bruises, bleeding, electric shock, poisoning, chocking and bites aid kit

iii) Kitchen, personal and food hygiene

- Communicable and son communicable disease.

iv) Sense organs

- Exercise and cosmetics care of sense organs

e. Home Gardening

- Definition
- Common gardening tools
- Advantages of home gardening

SECOND SEMESTER

HEC 021 FOODS AND NUTRITION (2 Credits) C

a. Food and Nutrition

i) Definition of food and nutrition

- Classification of nutrients, their source and function, deficiency disease
- Classification of foods, cereals, fat and oils, sugars, milk and milk products, meat, fish pulses, nuts, fruits and vegetables

ii) The digestive system

iii) Nutrition for special groups e.g. infants, toddlers, and adolescents.

b. Meal Planning

i) Principles of meal planning

- Differentiate between dietary needs and meals for special occasions/groups.
- Preparation and serving of meals.
- Snacks and beverages

ii) Table setting, table manners and hosessing

c. Cookers and cooking

i) Types of cookers
ii) Reasons for cooking
iii) Methods of cooking

- Heat transference by conduction convection and radiation
- Care of cookers
- Moist and dry methods of cooking

d. Flours and uses

i) Types and uses of flours
ii) Raising agent e.g. air, yeast palm-wine, steam, etc

e. Basic mixture

- Pastries/Batters
- Definition/uses

f. Recipes and Methods

- Scientific methods in foods and nutrition
- Measure units and accuracy
- Various nutrients tests in food e.g. carbohydrates

g. The Kitchen

- Types of kitchen
- Arrangement
- Tools and equipment
- Selection, use and care

h. Food Storage and Preservation

i) Meaning and purpose of preservation

- Causes of food spoilage
- Principles of food preservation
- Methods of food preservation

ii) Convenience Food

- Definition and types
- Guidelines for selection
- Additives to convenience food

iii) Rechauffe Dishes

- Meaning, rules and types
- Advantages and disadvantages of rechauffe dishes

HEC 022 CLOTHING AND TEXTILE (2 Credits) C

a. Fibres and Fabrics

i) Origin of fibres

- Definition of textile terms, e.g. fibres, fabrics, yarn, staple, filament, blends and dye

ii) Classification and properties of fibres e.g. cotton, rayon and silk

iii) Fabric finishes: moth-proofing, embossing, durable pleating, flame-proofing and stain-repellant

iv) Textile labeling

- Meaning and types
- Recognition and types

b. Sewing equipment and garment construction

i) Sewing machine

- Types, parts, use and its care

ii) Basic process in garment construction e.g. basic stitches, seams edge finishes, crossway strips.

iii) Style features e.g. collars, yokes, pockets, frills, cuts and belts

iv) Arrangement of fullness e.g. darts, tuck gathering, pleats, smocking and shirring

v) Decorative design, decorative stitches, needlecraft e.g. tarting, crotcheting, knitting, appliqué patch work and soft toys.

vi) Simple processes and mend garments e.g. patching, darning and renovation, batik/tie and dye

vii) Garment construction

- Figure types, body measurement
- Choice of styles for different figures
- Factors influencing the choice of fabric

viii) Wardrobe planning and maintenance

- Basic rules in wardrobe planning
- Factors affecting wardrobe planning, weather, occupation, personal features

ix) Good grooming, dress sense and accessories

- Definition

c. Laundry and Care of Clothes

i) Washing and finishing process, sorting, mending, removal of stains, soaking, rising, drying and ironing

ii) Laundry agents – water, detergents, soaps, stiffness and disinfectants

iii) Stain

- Meaning, types, removing
- agents
- process of removal

iv) iron and ironing temperature

HEC 023 Home Management (2 Credits) C

a. Housing the family

i) Houses and home

- Types of houses
- Factors that affect the choice of a house
- Ways of acquiring a house

ii) Interior decoration

- Wall finishing and the application of principles of art and design
- Colour
- Textures
- Lines and
- Proportions

iii) Furniture and furnishings in the home

- Types
- Factors that affect choices and position

iv) Utilities in the Home

- Water light etc
- Cooking fuels e.g. gas, coal, kerosene and fire wood

v) Home Surface

- Types and care of surface and coverings
- Identification, preparation and use of cleaning agents such as water, soap, abrasives and polish
- Wood, tiles, formica, concrete plastics, linoleums, mats rung and terrazzo
- Care, washing, sweeping, dusting, shampooing, buffing and polishing.

vi) Sanitation in the Home

- Drainage systems – types
- Disposal of household refuse
- Pest menace
- Pest control
- Pollution and health hazards

HEC 024 Careers in Home Management (2 Credits) C

a. Careers in Home Economics

i) Home Economics

- Interior decoration
- Credit management
- Florist
- Teaching

ii) Foods and Nutrition

- Catering
- Dietetics
- Nutritionist

- Public Health Education

iii) Clothing and Textile

- Fashion designing
- Teaching

iv) Family and child development: early and childhood educator

v) Counseling

vi) Media

vii) Research

b. Interrelationship of Home Economics

With other subjects: Biology, Geography, Chemistry, Agricultural Science and Fine Arts

PRE-NCE FINE AND APPLIED ARTS

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
FAA 011	Meaning and Functions of Art in Society	3	C
FAA 012	Cultural and Historical Dimensions of Art	2	C
FAA 013	Artistic Skills, Techniques and Processes	3	C
		8	C

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDITS	STATUS
FAA 021	Tools, Equipment and Materials	2	C
FAA 022	Practical Drawing	2	C
FAA 023	Arts Appreciation	2	C
FAA 024	Development in Contemporary Nigerian Arts and Artists	2	C
		8	C

COURSE DESCRIPTION

FAA 011 MEANING AND FUNCTIONS OF ART IN SOCIETY (3 CREDITS) C

Clarification of Art

- What art is
- Functions of art in society: Religious, social, cultural, political, therapeutic and economic needs,
- Functions of art in television: Advertising, educational recreational etc.
- Visual Arts: (Fine and Applied Art)
- Performing Arts: (Music, Dance and Drama)

a. Elements and Principles of Design:
   - Elements: line, colour, shape, form, texture, tone, value, space etc.
   - Principles: balance, rhythm, proportion, harmony, contrast, repetition, dominance, variety, etc.

b. Art Terms:
   - Pigments, motif, green-ware, armature, silhouette, chiaroscuro, cireperdue, terra-cotta etc.

FAA 012 CULTURAL AND HISTORICAL DIMENSIONS OF ART (2 CREDITS) C

- Prehistoric, Greek and Roman Art
- Medieval Art: architecture, surface decorations and calligraphy;
- Renaissance Art and Artists: Giotto Di Bondone, Michellangelo Buonarroti, Leanardo da vinci, Raphael (Raffaelo Santi) etc.

- 19^{th} and 20^{th} Century art movements; Impressionalism, realism, Futurism, Cubism, Bauhaus, Pop art, Abstract, Expressionanism, Fauvism, etc.

a. Traditional African Art:Egypt, Ashanti, Dogon, Mossi, Fon, Sanufo, Bambara, Mende, Kisi, Bamileke, Bakumba etc.
b. Traditional Nigerian Art: Nok, Ife, Igbo-Ukwu, Benin, Esie, Igala, Jukun, Akwashi, Mbari, etc
c. Nigerian Local Crafts: Pottery, woodworks, cloth-weaving, caving, leather works, metal works, beadworks, body decoration, mat and cane weaving etc.

FAA 013 ARTISTIC SKILLS, TECHNIQUES AND PROCESSES (3 CREDITS) C

- Two-Dimensional Art: Drawing, Painting, Graphics and Textile design
- Perspective: (1) Linear, angular, aerial, parallel etc. (2) Perspective terms: foreground, picture plane, eye-level vanishing point, foreshortening, optical illusion, dept etc.
- Sculpture, Ceramics and Crafts
- Computer Graphics: Corel Draw
- Two-dimensional Art Materials: Pencils charcoal, pastel/crayon, fixatives, fabric, dyes, lino, wood blocks etc.
- Two-dimensional Art Tools: Brushes, lino cutters, drawing instruments, calligraphy, pens, sharpeners, etc.
- Two-dimensional Art Equipment: air compressor, spray gun, enlarger, computer etc.
  Improvisation of materials: (1) Two-dimensional Art: colours, brushes, calligraphy etc. (2) Three-Dimensional Art: spatula, kiln, beater, etc.

SECOND SEMESTER

FAA 021 TOOLS, EQUIPMENT AND MATERIALS (2 CREDITS) C

- Introduction to materials, tools and their care
- Drawing for 3 – Dimensional art work
- Formation, preparation and properties of clay
- Production of simple hand forms
- Masks, puppetry, mobiles
- Studies of different parts of the body, (hands, legs, toes, head and bust)
- Ceramics processes and techniques e.g. Coiling, pinching, slabbing and throwing.
- Tools and equipment for three dimensional work and glazing of biscuit wares
- Composition
- Modeling in clay
- Ceramic sculpture
- Method of firing clay-work
- Construction of forms using deadwood and stumps

FAA 022 PRACTICAL DRAWING (2 CREDITS) C

- Introduction to Fundamental Principles of Drawing
- Still life, nature or imaginative composition
- Shading techniques – cross-hatching, pointillism, rubbing/blurring
- Composition and use of space.

FAA 023 ART APPRECIATION (2 CREDITS) C

- Man-made objects: architecture and sculpture
- Natural phenomena: Zuma Rock, Ikogosi Warm Springs, etc Light, shade and shadow in drawing
- Plant life: flowers, leaves, barks etc
- Landscapes
- Mechanical objects
- Quick sketching

FAA 024 DEVELOPMENTS IN CONTEMPORARY NIGERIAN ARTS AND ARTISTS:

(2 CREDITS) C

- Art Schools: Zaria, Nsukka, Oshogbo group etc
- Nigerian artists and art educators; Aina Onabolu, Ben Enwonwu, S. I. Wanggboje, Jimoh Akolo, Dele Jegede etc.
- Museums, galleries and art centres;
- Art institutions, Cultural art centres, National Art Organisations – Nigerian Society for Education through Arts (S.N.E.A.) Socciety for Nigerian Artists (S.N.A.), Natioanl Council for Arts and Culture (NCAC), etc.
- Major Festivals: Argungu Fishing Festival, Eyo, Egungun, Ire-Ji (New Yam), Durbar, Igue, Ekpo, odo, Etc

PRE-NCE TECHNICAL EDUCATION

COURSE OUTLINE

FIRST SEMESTER

COURSE CODE	COURSE TITLE	CREDIT	STATUS
TED 011	Introduction to Metal Work Technology	1	C
TED 012	Introduction to General Wood work	1	C
TED 013	Applied Electricity	2	C
TED 014	Building Technology	2	C
TED 015	Auto Mechanics	1	C
TED 016	Technical Drawing	1	C
		8	

SECOND SEMESTER

COURSE CODE	COURSE TITLE	CREDIT	STATUS
TED 021	Metal Work Technology	1	C
TED 022	Wood work Technology	1	C
TED 023	Electrical/Electronics	1	C
TED 024	Building Technology	2	C
TED 025	Auto Mechanics	2	C
TED 026	Technical Drawing	1	C
		8	**C**

COURSE DESCRIPTION

FIRST SEMESTER

TED 011 Introduction to Metal Work Technology (1 CREDIT) C

General Introduction to Metalwork Technology

- General workshop rules and regulations
- Safety equipment and importance e.g. sand bucket, fire extinguisher etc

Materials

- Introduction to production of iron
- Ferrous and non-ferrous metals

- Plain carbon steel; dead mild, medium carbon and high carbon, steel

Metal Work Tools

- Measuring and marking out tools and instruments types and their uses
- Cutting and striking tools e.g. tin snip, hammers etc
- Holding devices – bench vice, etc
- Elementary principles of marking out
- Angular measuring instruments Vemier Protractor
- Soldering, fluxes and their uses
- Composition of common solders
- Methods of soldering
- Common sheet metal working tools, care and their uses
- Files and filing

Practical

- Simple soldering
- Methods of holding work
- The use of calipers, micrometers and protractors
- Simple sheet metal work exercises
- Introduction to bending, folding, forging and soldering

TED 012 WOODWORK (1 CREDIT) C

Introduction to General Woodwork

- A study of the tree kinds characteristics and uses of timber, the lumbering industry (seasoning, common causes of defects in seasoned and unseasoned timber)
- Other man-made and manufactured wood and wood-products and their usefulness in wood working
- Common safety precautions in the wood workshops

Classification of Wood working Hand Tools

- Measuring and layout tools; holding and assembling tools, edge cutting tools, sharpening tools etc
- Safety precautions in handling, and maintaining hand-tools and work-aids
- Woodwork equipment and facilities etc
- The workbench

Practical

- Use of common hand tools
- Joint construction and their uses
- Nails, screws and other means of fastening
- Use of dimensioned sketches, a written description and working drawings

TED 013 APPLIED ELECTRICITY (1 CREDIT) C

Nature of Electricity

- Principles of electricity generation and usage by conversion e.g. diesel generator and hydro-electric power
- Conductors, insulators, semi-conductors
- Definition of coulombs
- Resistor colour codes

Electrical Measurements

- Units of current, potential difference and resistance
- Ohm's law and its applications to simple problems
- Electrical energy and power

Electric fields

- Simple demonstration of charge storage e.g. ebonite rod, comb and paper, gold leaf, electroscope etc
- Relationship between charge and applied voltage

Electromagnetism

Introduction to Electro magnetism

- Temporary and permanent magnets
- Magnetic poles, fields, flux and strength
- Law of magnetism
- Methods of making magnets
- Laws of electromagnetic induction and Applications
- Electromagnetic Devices (Belts, Relay, Transformer, Generator, Motor

Practical

- Electrical safety measures
- Electrical symbols (their importance and circuit connection)
- Workshop tools and electrical accessories
- Protective devices and their applications
- Wiring types/methods
- I.E.E. Regulations (some basic ones)
- Wiring to main switch
- Wiring to ceiling roses
- Wiring to Lamp holders

TED 014 BUILDING TECHNOLOGY (2 CREDITS) C

a) General requirement of Building in some specific fields of endeavours e.g. A Builder as an engineer, as a technologist, as an economist and as an academician.
b) Prospects in Building e.g. employment opportunities, academic opportunities etc.
c) Physiological needs e.g. protection from harsh wind, sun, rain, enemies, others etc
d) Social aspects e.g. Buildings as conference halls, theatres churches mosques etc
e) Economic aspects e.g. a source of revenue generation such as fixed assets serving as a facet of national development.

Identification, Properties, Usage and the Economy of Certain Locally Available Building Materials

1. Mud
2. Bamboo
3. Timber

Classification and General Requirement of Buildings

a) Classification of Building according to construction
   i) fire proof construction
   ii) Semi-fire proof construction
   iii) Heavy timber construction
   iv) Ordinary construction
   v) Framed construction

b) Load bearing construction

c) Skeleton construction

Sources and Materials for Different kinds of Blocks Produced in Nigeria

a) Materials and sources
b) Type of blocks
c) Standard sizes
d) Curing of blocks
e) Calculation of quantity of materials per a given area of wall

Contribution of Building Technology to National Development;
a) Building as an infrastructural facility

b) Annual allocation to capital projects
c) Percentage share of Building in annual allocation to capital projects
d) Percentage contribution of building to national development

TED 015 AUTO MECHANICS (1 CREDIT) C

Vehicle Layout

- Layout of a motor vehicle chasis
- Arrangement and function of the main components

Engine

- Different types of engines and their principles of operation

Engine Lubrication and Cooling System

- Engine lubrication system component and their functions
- Lubricants
- Types of engine cooling system – Components and their functions

Fuel Systems

- Layout of main components and their basic functions
- Types of fuel

Auto Electrical Systems

- Introduction to Ignition, charging, starting, lighting and Auxilliary Circuts

Practical Work

Vehicle Layout

- Inspection and identification of vehicle layout
- Identification of types of engines and engine components
- Removing and replacement of water hoses
- Fan belt adjustment
- Replacement of radiator and flushing of cooling systems
- Removal and replacement of water pump

Engine

- Removing, cleaning, resetting and refitting of spark plugs
- Adjustment of valve clearance

Engine Lubrication and Cooling System

- Changing of oil and oil filter

TED 016 TECHNICAL DRAWING (1 CREDIT) C

- Graphic Language
- Graphic Language as a medium of communication
- Types of technical drawing: Architectural, electrical, mechanical, building, electronics etc

Drawing Equipment/Instruments

- Common technical drawing instruments and equipment e.g. drawing boards, tee and set squares, etc
- Their uses, selection and maintenance

Preparation Equipment/Instruments

- Layout and Title-block formats
- Sample title block for assembly and details drawing
- Adoption of one standard format

Types of Lines/Lettering

- Types of lines e.g. outline, dotted line, centre line etc.
- Types of lettering used in drawing e.g. Roman, Greek, gothic, square etc
- Styles of lettering – vertical, slanting
- Freehand lettering
- Use of stencils and radiograph

Dimension/Lettering/Sketching

- Dimensions in drawing
- Basic characteristics of dimension lines
- Freehand sketching
- Use of stencils and radiographs
- Methods and practices

Geometric Construction

- Bisection/Division of lines into various parts
- Construction of angles – 300, 600, 900 etc and copying of angles, - construction of a triangle given side(s) and/or angles and transfer of angles etc
- Properties of quadrilateral, rectangle, parallelogram, and their construction
- Parts of a circle e.g. radius, diameter, tangent and circumference
- Various methods of constructing tangents
- Construction of polygons e.g. pentagon, hexagon etc
- Enlargement and reduction of figures using scale

SECOND SEMESTER

TED 021 METAL WORK (1 CREDIT) C

- Safety precaution on twist drills and drilling machines
- Care and use of twist drills
- Importance of correct sharpening of drills and safety precautions
- Micrometer readings
- Principles, care and use of micrometer and metric vernier
- Introduction to forge working
- Forging operation
- Sheet metal joints

Practical

- The use of sensitive drilling machines
- Methods of holding work
- Simple exercises in drilling with twist drills
- More complex fitting exercises
- More difficult filing to shape
- Simple sheet metal work exercises

TED 022 WOODWORK (2 CREDITS) C

Study of Basic Machines

- Machine tools and power tools, their operations, maintenance and safety measures
- Fundamental processes in using wood working machines with emphasis on safety precautions
- Constructional processes in project making and development.

Designs and Practical

- Design in relation to wood work construction e.g. fitness for purpose, general proportions, suitable construction, contour, face decoration and appropriate finish.
- Constructional processes; common joints and their uses, preparations of cutting list from dimensioned drawings, gluing and assembling of small jobs, staining, polishing, painting and presentation.

TED 023 ELECTRICAL/ELECTRONICS TECHNOLOGY (1 CREDIT) C

- Direct and Alternating Currents
- Introduction to AC and DC
- DC and AC Motors
- Characteristics of DC and AC Generators

Electrical Supply System and Wiring Accessories

- Simple description of electricity supply systems from the power station to the consumer's premises
- Common types of fuses and their ratings
- Reasons for carthing frames of appliances e.g. electric irons, electric kettle etc
- Use of earth leakage circuit breaker (EL CB)

Electronics and Telecommunications

- Thermionic and photo-electric emission
- Valves and their applications
- Simple treatment of triodes, tetrodes and pentodes
- Simple treatment of transistors
- Types of communications
- Carbon and moving coil microphone
- Radio Transmitter and Receivers

Practical

- Control of light by one way switch
- Control of light by two way switch
- Control of light by intermediate switch
- Grouping of lamps, socket outlets on final sub-circuits
- Ring circuits and spars
- Wiring of electric bell

TED 024 INTRODUCTION TO STRUCTURE (2 CREDITS) C

a) General conditions of equilibrium
b) Systems of forces and resultants
c) Resolution of forces
d) Bew's notation and triangle of forces
e) Moments
f) Calculation of Beam support reactions
g) Types of forces within structural calculations

Building Drawing Sketches/Planning

a) Sketch planning
b) The plan
c) Sections
d) Elevations

- Visitation to Building Construction sites
- Brief introduction to Building Contracts

TED 025 FUEL AND EXHAUST SYSTEMS (2 CREDITS) C

- Description of fuel lines
- Components along the fuel lines
- Servicing air cleaners
- Cleaning of filters
- Air-venting of the fuel system – Description

Electrical System

- Removing and refitting the battery: use of hydrometer and voltmeter in testing the battery
- Replacement of fuses
- Removal and replacement of starters and generators or alternators
  Fitting the distributor heads correctly

- Describing the arrangement of the firing order to an engine

Suspension

- Types of suspension and associated components

Brakes

- Layout of the conventional braking system

Practical Work

Transmission

- Layout of the transmission system for different engines driving wheel arrangements
- Identification of the component parts of a single transmission assembly

Clutches

- Identification of the component parts of a single plate cutch assembly

Gear Box

- Identification of the parts
- Practical method of checking the gear ratio
- Choice of lubricating oils

Propeller Shaft

- Inspecting and fitting of the propeller shaft – (universal joint)

Rear Axle

- Identification of component parts

Steering

- Identification of the various components of steering assembly (conventional types
- Adjustment of wheel bearings
- Setting of wheel alignment

TED 026 TECHNICAL DRAWING (1 CREDIT) C

Loci

- Locus of a point
- Definition and construction of loci e.g. ellipse, cycloid, etc

Orthographic Projections

- Introduction to orthographic projection
- Principal planes of projection:- Vertical, Horizontal and profile planes
- First angle and third angle projections

Oblique Projections

- Differences between ordinary and Isometric Scales
- Construction of Isometric Scales and Application

Surface Development

- Basic concept of surface development in Technical Drawing
- Illustration of the following methods of surface development – Parallel and Radial lines
- Complete surface development of: prisms, pyramids, cylinders, right circular cones etc