DISTANCE LEARNING INSTITUTE

UNIVERSITY OF LAGOS

DEPARTMENT OF EDUCATION

STUDENT

HANDBOOK

2021 – 2024 SESSION

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Uniaversity of Lagos
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e-mail: directordli@unilag.edu.ng
Website: http://www.dli.unilag.edu.ng

Professor Oluwatoyin Ogundipe, FAS
B.Sc. M.Sc. Ph.D. Botany (Ife), MBA (Lagos), FLS (Lond)
Vice Chancellor

Professor Uchenna Udeani
B.Sc., Ph.D. (Nigeria)
Director

Message from the Director

Congratulations and welcome to the Distance Learning Institute, University of Lagos. The Governing Council of the University of Lagos in line with the statutory provisions, approved the establishment of the Distance Learning Institute in 1996.

The Distance Learning Institute programme of studies is the same as that offered for the full-time students of the University of Lagos. The only difference is the mode of delivery which is the ICT Enabled Supported Blended Learning model (IESBL) of the Open Distance Learning mode. It is designed for those whose schedules, distance, financial situations and other circumstances may not permit them to enroll in full-time studies at a University.

The Institute has prepared study packs comprising learning materials in mixed media formats for you to study at your convenience, communicate with your lecturers through various multi/social media platforms and online interaction via the DLI Mobile App and the Learning Management System (LMS).

Let me assure you that with the resources available, we have migrated fully to the Open and Distance Learning Platform and are now well positioned to meet your needs as you learn with us largely online.

DLI Management hopes that this handbook will provide useful information about your Academic Programme.

We are optimistic that you will find your academic career with us a rewarding and fulfilling experience. We wish you the very best at the University of Lagos – The University of First Choice and the Nation's Pride!

Welcome on Board!!

Professor Uchenna Udeani
Director

WELCOME ADDRESS FROM THE COORDINATOR OF DEPARTMENT OF EDUCATION

I welcome you to Education Department, Distance Learning Institute, University of Lagos. You have made the best choice of your course of study.

In Distance Learning Institute, the lecture delivery mode is ICT enabled blended learning through on-line and face to face. Lecture modules are available in print and on the Learning Management system (LMS) in clear and simple language to facilitate self-study.

There are rules and regulations guiding your studentship which have been clearly written in this handbook. Endeavour to take time out to read through to get acquainted with them. It is therefore imperative for all current and prospective students to have a copy of this handbook.

The Department currently runs eight programs; Biology Education, Chemistry Education, Mathematics Education, Physics Education Economics Education, English Education, Business Education and early childhood Education. More programs such as post graduate diploma in Education, Guidance and counselling will soon be introduced in the department after approval by the Senate of the University.

The Department is blessed with qualified, committed, dedicated and hardworking members of staff, academic and non-academic, who are always ready to help you achieve your academic goals in the Institute.

Also, course advisers being approachable, are always available to put you through in case you have any question or challenges in your puzzles toward attaining your academic goal. You can confidently contact them and you will be glad you did. I want to say that you will find learning to be very exciting in the Education Department. I wish you all the best in your academic endeavors.

Dr. Comfort O. Adeniyi

Coordinator, Department of Education

VISION

To be a leading institution in the provision of quality open and distance education opportunities for all.

MISSION

To provide seamless access to high quality education which adds life-long values through blended learning platforms for the fulfillment of individual's educational aspirations.

CORE VALUES

- Lifelong education
- Learner centeredness
- Continuing learning
- Learner support
- Learner satisfaction
- Egalitarianism
- Integrity
- Honesty

PHILOSOPHY

The philosophy of the University of Lagos Distance Learning Institute is premised on the belief that university education which includes life-long learning should be accessible to all Nigerians and foreigners irrespective of age, race, sex, religion and any other circumstances including employment.

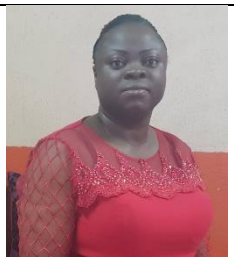
OBJECTIVES

The Institute's main objectives are to:

1. Provide unrestricted access to University education and life-long learning for desiring learners who because of peculiar circumstances are not able to attend the conventional face-to-face.
2. Collaborate with other Open and Distance Learning Institutions for mutual benefits and best practices.
3. Continuously provide robust staff training and development programme for optimal performance.
4. Provide blended learning platform for knowledge creation and acquisition.
5. Utilize the power of Open and Distance Education enabled by technology to provide learning at scale and accelerate progress towards the Sustainable Development Goals (Especially SDG 4, 5, & 8).
6. Make education open to all and promote social justice through the development of knowledge and skills.
7. Empower people through the use of Open Educational Resources (OERs) Massive Open Online Courses (MOOCs) and multi-platform technologies.
8. Provide demand-driven programmes through Distance Learning to address the needs of the local and international labour markets.
9. Maintain high level quality assurance in service delivery.

10. Address the needs of diverse learners through excellent learner support services
11. Make the needs of learners central in service delivery.
12. Promote scholarship and research in all fields of human endeavour for sustainable national development.
13. Offer community services within the catchment areas of the University.

ACADEMIC STAFF OF DEPARTMENT OF EDUCATION

 **COORDINATOR** **Dr. Comfort Olawumi Adeniyi** BSc. Ed., M.Ed., Ph.D. Mathematics Education; PGD Banking & Finance; MSc Banking & Finance Lecturer I	 **Dr. Afolashade Afolabi** B.Sc. (Ed). Physics M.Ed. Science Education Ph.D. Physics Education Senior Lecturer	 **Dr. Adenike Julianah Oladipo** BSc. Ed. Biology Education M.Ed. Curriculum Studies in Science Ph.D. Biology Education Lecturer I
 **Dr. Ebahi Abosede Margaret** BSc., MSc., Ph.D. Botany Lecturer I	 **Dr. Esther O. Oladele** BSc. Ed. Biology MSc. Cell & Genetics Ph.D. Cell & Genetics (Specialization in Genetics, Environmental Biology and Toxicology) Lecturer I	 **Dr. Modebelu, Obiageli J.** NCE., B.Ed. Adult Education MSc. Guidance and Counselling MSc. Social Work Ph.D. Educational Foundation: Guidance and Counselling Lecturer I

 **Dr. Adegun Adedunni Omowumi** B.Ed. Guidance and Counselling M.Ed. Counselling Psychology Bias. Educational Psychology/School Counselling Ph.D. Counselling Psychology Lecturer I	 **Dr. Olusoji Olurotimi Adewumi** BSc. Zoology PGD. Computer Science MSc. Cell Biology & Genetics Ph.D. Cell Biology & Genetics Lecturer I	 **Dr. Adewoyin Adeyinka David** BSc. Physics MSc. Physics PGDE Ph.D. Physics Lecturer II
 **Dr. Bolarinwa, Kehinde Abiola** BSc. Botany MSc. Cell Biology & Genetics Ph.D. Cell Biology & Genetics (Specialization Plant Breeding, Genetics and Molecular Biology) Lecturer II	 **Dr. Abdulganiy Ridwanulahi** NCE (Computer Science/Mathematics Education) B.Sc. (Ed.) (Hon) Mathematics. MSc. (Applied Mathematics) Ph.D. (Computational Mathematics/Numerical Analysis) Lecturer II	 **Dr. Reju Comfort Okwuegbune** NCE Mathematics/Integrated Science BSc. (Ed) Mathematics PGD. Computer Science MTech. Applied Mathematics Ph.D. Mathematics

		Education Lecturer II
 **Dr. Fashina Abiola Yetunde** BSc. Ed. Biology M.Ed Guidiance and Conuselling M.Ed Early Childhood Education Ph.D. Counselling Psychology Lecturer II	 **Ms. Bamgbade, Elizabeth Oluwakemi** B.Sc. Ed. Chem. Education M.Ed. Edu. Administration MSc. Chemistry Assistant Lecturer	 **Mr. Ajayi, Kayode Felix** BSc. Physics MSc. Physics Assistant Lecturer
 **Adesoji Adedoyin Oluwaseyi** B.Tech. Pure & Applied Chemistry MSc. Analytical Chemistry Assistant Lecturer		

GENERAL ACADEMIC REGULATIONS

1. GENERAL ADMISSION REQUIREMENTS

1) Candidates seeking admission to the Distance Learning Institute need not to take the University Tertiary Matriculation Examination (UTME).

   Selection instruments such as the UTME will be replaced with on-line and personal interactions with a view to determining individual candidate's learning needs and potentials.

2) Candidates must meet the minimum entry requirements of five (5) credits in SSCE/GCE/NECO O Level, including English Language and Mathematics, taken at not more than two sittings.
3) The minimum age requirement is sixteen years.
4) Admission is open to all applicants irrespective of any learning disability or challenge.
5) Applicants are required to possess basic ICT skills to enable them navigate the ICT Enabled Supported Blended Learning Model (IESBL) of the ODL mode.
6) Candidates offered provisional admission will be required to:

a. Submit their credentials for validation

b. Go through an Applicants Induction Course (AIC) on ODL culture

c. Submit themselves to capturing of their biometrics

***Note:* (*Admission process is done strictly online*).**

Admission Requirements to Year 1

Without prejudice to specific departmental requirements, the following shall apply: -

Candidates seeking admission to Year 1 should possess one of the following:

1. Five credits in the SSCE/GCE/NECO O Level, including English Language and Mathematics, and any three other subjects relevant to the cognate area taken in not more than two sittings.
2. Five merits in the NABTEB/TC II in relevant subjects.

Admission Requirements to Year 2

Candidates seeking admission to Year 2 should possess one of the following:

1. The National Certificate of Education (NCE) with at least Merit grades in two relevant teaching subjects.
2. The National Diploma (ND) in relevant fields with a minimum of lower credit.

3. The Joint University Preliminary Examinations Board (JUPEB) certificate with at least credit grades in relevant subjects.
4. GCE A Level with at least credit grades in three relevant subjects.

Admission Requirements to Year 3

Candidates seeking admission to Year 3 in relevant programme should possess at least one of the following:

1. Higher National Diploma (HND) in relevant fields with a minimum overall grade of lower credit.
2. Bachelor's degree with a minimum Pass Class in relevant discipline obtained from a university recognized by the Senate of the University of Lagos.
3. Recognized professional qualifications.

Note: Candidates seeking admission to Years 2 and 3 must in addition possess the minimum O Level requirements.

SPECIFIC COURSE REQUIREMENT

B.Sc. Education Biology

1. WASCE/SSCE/GCE/NECO (O Level) or its equivalent with credits in five (5) subjects including English Language, Mathematics, Biology, Chemistry and either of Physics or Agricultural Science, Integrated Science and Fisheries/Animal Husbandry at not more than two (2) sittings.

2. (a) Graduates of University of Lagos or any other University recognized by the Senate with a minimum of Pass in relevant disciplines excluding holders of degrees in Biology subject to satisfaction of O Level requirements.

   (b) The National Certificate of Education (NCE) with at least merit grades in Biology and other science subjects, subject to satisfaction of O level requirements.

   (c) GCE The National Diploma (ND) with a minimum of Lower Credit in relevant fields subject to satisfaction of O Level requirements.

   (d) GCE A Level with at least Credit grades in two (2) relevant subjects such as Biology, Chemistry, Agricultural Science, etc., subject to satisfaction of O Level requirements.

   (e) The Joint University Preliminary Examinations Board (JUPEB) certificate with at least credit grades in Biology, Chemistry and Physics subject to satisfaction of

O Level requirements.

3. (a) Graduates of University of Lagos or any other University recognized by the Senate with good honours degrees in relevant disciplines excluding holders of degrees in Biology subject to satisfaction of O Level requirements.
   (b) Higher National Diploma (HND) with a minimum of Lower credit in relevant fields subject to satisfaction of O Level requirements.

B.Sc. Education Business Studies

1. WASCE/SSCE/GCE/NECO (O Level) or its equivalent with credits in five (5) subjects including English Language, Mathematics, Economics and two (2) subjects from Arts or Social Sciences, Data Processing/Office Practice, Financial Accounting at not more than two (2) sittings.

2. (a) Graduates of University of Lagos or any other University recognized by the Senate with a minimum of Pass in relevant disciplines excluding holders of degrees in Education Business subject to satisfaction of O Level requirements.

   (b) The National Certificate of Education (NCE) with at least merit level pass in Business Education (Double Major), Merit passes in two relevant subjects such as Financial Accounting, Office Management, subject to satisfaction of O Level requirements.

   (c) The National Diploma (ND) with a minimum of Lower Credit in relevant fields subject to satisfaction of O Level requirements.

   (d) GCE A Level with at least Credit grades in two (2) relevant subjects subject to satisfaction of O Level requirements.

   (e) The Joint University Preliminary Examinations Board (JUPEB) certificate with at least Credit grades in three (3) subjects including Economics and any two (2) of Accounting, Geography, Government, Business Management, subject to satisfaction of O Level requirements.

3. (a) Graduates of University of Lagos or any other University recognized by the Senate with good honours degrees in relevant disciplines excluding holders of degrees in Education Business subject to satisfaction of O Level requirements.

   (b) Higher National Diploma (HND) with a minimum of Lower credit in relevant fields subject to satisfaction of O Level requirements.

B.Sc. Education Chemistry

1. WASCE/SSCE/GCE/NECO (O Level) or its equivalent with credits in five (5) subjects including English Language, Mathematics, Chemistry and any two of Physics, Biology or Agricultural Science, Integrated Science and Fisheries/Animal Husbandry at not more than two (2) sittings.

2. (a) Graduates of University of Lagos or any other University recognized by the Senate with a minimum of Pass in relevant disciplines excluding holders of degrees in Chemistry subject to satisfaction of O Level requirements.

   (b) The National Certificate of Education (NCE) with at least Merit grades in Chemistry and any other science subject, subject to satisfaction of O Level requirements.

   (c) The National Diploma (ND) with a minimum of Lower Credit in relevant fields subject to satisfaction of O Level requirements.

   (d) GCE A Level with at least Credit grades in two (2) relevant subjects Chemistry, Biology etc. subject to satisfaction of O Level requirements.

   (e) The Joint University Preliminary Examinations Board (JUPEB) certificate with at least Credit grades in three (3) subjects including Chemistry, Physics and Biology, subject to satisfaction of O Level requirements.

3. (a) Graduates of University of Lagos or any other University recognized by the Senate with good honours degrees in relevant disciplines excluding holders of degrees in Chemistry subject to satisfaction of O Level requirements.

   (b) Higher National Diploma (HND) with a minimum of Lower credit in relevant fields subject to satisfaction of O Level requirements.

B.Sc. Early Childhood Education

1. WASCE/SSCE/GCE/NECO (O Level) or its equivalent with credits in five (5) subjects including English Language, Mathematics, and any three (3) subjects at not more than two (2) sittings.

2. (a) Graduates of University of Lagos or any other University recognized by the Senate with a minimum of Pass in relevant disciplines excluding holders of degrees in Early Childhood and Care subject to satisfaction of O Level requirements.

   (b) The National Certificate of Education (NCE) with at least merit grades in Primary Education Studies and any teaching subject, subject to satisfaction of O Level requirements.

(c) The National Diploma (ND) with a minimum of Lower Credit in relevant fields subject to satisfaction of O Level requirements.

(d) GCE A Level with at least Credit grades in two (2) relevant subjects in Arts, Sciences or Social Sciences except Commerce, Typing and Shorthand subject to satisfaction of O Level requirements.

(e) The Joint University Preliminary Examinations Board (JUPEB) certificate with at least Credit grades in three (3) subjects in Arts, Sciences or Social Sciences except Commerce, Typing and Shorthand subject to satisfaction of O Level requirements.

3. (a) Graduates of University of Lagos or any other University recognized by the Senate with good honours degrees in relevant disciplines excluding holders of degrees in Early Childhood and Care subject to satisfaction of O Level requirements.

   (b) Higher National Diploma (HND) with a minimum of Lower credit in relevant fields subject to satisfaction of O Level requirements.

B.Sc. Education English

1. WASCE/SSCE/GCE/NECO (O Level) or its equivalent with credits in five (5) subjects including English Language, Mathematics, Literature-in-English and any two (2) of History/Government, any Nigerian Language, Economics/Commerce, Geography, French/Arabic, CRS/IRS, Civic Education at not more than two (2) sittings.

2. (a) Graduates of University of Lagos or any other University recognized by the Senate with a minimum of Pass in relevant disciplines such as Communication and Language Art, Library and Information Science, Mass Communication, Modern European Languages (French, German, Russian), Phonetics excluding holders of degrees in English subject to satisfaction of O Level requirements.

   (b) The National Certificate of Education (NCE) with at least merit grades in English Language, Literature-in-English, Mathematics and any other two (2), subject to satisfaction of O Level requirements.

   (c) The National Diploma (ND)with a minimum of Lower Credit in relevant fields such as Communication and Language Art, Library and Information Science, Mass Communication, Modern European Languages (French, German, Russian), Phonetics subject to satisfaction of O Level requirements.

(d) GCE A Level with at least Credit grades in relevant subjects including English Language and English Literature subject to satisfaction of O Level requirements.

(e) The Joint University Preliminary Examinations Board (JUPEB) certificate with at least Credit grades in three (3) subjects in Literature-in-English and any two (2) of French, Igbo/Yoruba, History, CRS/IRS, Government, Economics and Arabic subject to satisfaction of O Level requirements.

3. (a) Graduates of University of Lagos or any other University recognized by the Senate with good honours degrees in relevant disciplines such as Communication and Language Art, Library and Information Science, Mass Communication, Modern European Languages (French, German, Russian), Phonetics excluding holders of degrees in English subject to satisfaction of O Level requirements.

   (b) Higher National Diploma (HND) with a minimum of Lower credit in relevant subject area such as Communication and Language Art, Library and Information Science, Mass Communication, Modern European Languages (French, German, Russian), Phonetics subject to satisfaction of O Level requirements.

B.Sc. Education Mathematics

1. WASCE/SSCE/GCE/NECO (O Level) or its equivalent with credits in five (5) subjects including English Language, Mathematics, Physics and any two (2) of Chemistry or Biology, Agricultural Science or Further Mathematics and Computer Studies/Data Processing at not more than two (2) sittings

2. (a) Graduates of University of Lagos or any other University recognized by the Senate with a minimum of Pass in relevant disciplines excluding holders of degrees in Mathematics subject to satisfaction of O Level requirements.

   (b) The National Certificate of Education (NCE) with at least Merit grades in Mathematics and one (1) other Science subject, subject to satisfaction of O Level requirements.

   (c) The National Diploma (ND) with a minimum of Lower Credit in relevant fields subject to satisfaction of O Level requirements.

   (d) GCE A Level with at least Credit grades in two (2) relevant subjects such as Mathematics, Physics etc. subject to satisfaction of O Level requirements.

   (e) The Joint University Preliminary Examinations Board (JUPEB) certificate with at least Credit grades in three (3) relevant subjects in Mathematics, Physics and Chemistry subject to satisfaction of O Level requirements.

3. (a) Graduates of University of Lagos or any other University recognized by the Senate with good honours degrees in relevant disciplines excluding holders of degrees in Mathematics subject to satisfaction of O Level requirements.

   (b) Higher National Diploma (HND) with a minimum of Lower credit in relevant disciplines subject to satisfaction of O Level requirements.

B.Sc. Education Physics

1. WASCE/SSCE/GCE/NECO (O Level) or its equivalent with credits in five (5) subjects including English Language, Mathematics, Physics, Chemistry and any one (1) of Biology, Further Mathematics, Integrated Science, Computer Science/Data Processing or Agricultural Science at not more than two (2) sittings.

2. (a)Graduates of University of Lagos or any other University recognized by the Senate with a minimum of Pass in relevant disciplines excluding holders of degrees in Physics subject to satisfaction of O Level requirements.

   (b) The National Certificate of Education (NCE) with at least Merit grades in Physics and one (1) of Biology, Mathematics and Chemistry subject to satisfaction of O Level requirements.

   (c) The National Diploma (ND) with a minimum of Lower Credit in relevant disciplines subject to satisfaction of O Level requirements.

   (d) GCE A Level with at least Credit grades in and Physics and Mathematics, subject to satisfaction of O Level requirements.

   (e) The Joint University Preliminary Examinations Board (JUPEB) certificate with at least Credit grades in three (3) subjects: Physics, Chemistry and any one (1) of Biology or Mathematics subject to satisfaction of O Level requirements.

3. (a) Graduates of University of Lagos or any other University recognized by the Senate with honours degrees in relevant disciplines excluding holders of degrees in Physics subject to satisfaction of O Level requirements.

   (b) Higher National Diploma (HND) with a minimum of Lower credit in relevant disciplines subject to satisfaction of O Level requirements.

2. REGISTRATION

Registration is a required process every student must fulfil at the beginning of a new academic session to maintain a bona fide status.

The Procedure

To be registered, a student is expected to go through the following processes:

- Submit a Remita printout for the full payment of the service charge. For new students, service charge should be paid only after such students have been screened and cleared for registration by the designated registration officials.

- Complete the registration form and make photocopy of same before submitting it to the Course Adviser. New students are expected to submit eight passport photographs for office use with their forms. This is required for the various documentation processes. Each student will be guided by the Course Adviser who will vet and approve the course(s) chosen. A list of the duty officers is usually on display for the guidance of the students. All students, on payment of service charges, must register their receipts by Matriculation Number, Name, Sex, Course, Programme and Year.

  Note: Please note that registration for extra course (s), where permitted will attract additional charges.

- Registration of Final Year Students with Carry-Over Courses. All final Year students who have carry-over courses will be required to retake such courses during the next academic session subject to the maximum load requirement and the payment of appropriate service charges. Condonement or waiver of failed courses at the final year level is no longer allowed by the University.

- Registration for Failed Courses. Students must register for failed courses before they can be credited with the results for those courses. Any student who sits for examination in courses for which he/she did not register for will have the result for such courses cancelled.

- All students are advised, in their own interest, to comply with all registration requirements as only bona fide registered students of the Institute will be allowed to sit for the Sessional Examinations.

3. MAXIMUM COURSE UNITS

- No student is allowed to register for more than the maximum units specified per session as shown in the different programmes.

Note: Students who ignore this information will have all units registered

above the maximum automatically cancelled. (Those who ignore the cancellation will not be allowed to write examinations in the cancelled courses while students who sit for the examinations in such courses will have the results cancelled).

4. LATE REGISTRATION

- Late registration will attract a penalty of N10,000.00.
  If under exceptional circumstances, late registration is allowed beyond the normal late registration deadline given for the session, such students will be required to pay a penalty of N10, 000.00 or the prevalent charge.

5. ADD AND DELETE

- Admission into courses closes when the registration deadline for the session expires. Duly completed and signed Add and Delete Forms must be submitted not later than four weeks to the commencement of the session examinations.

- ADD and DELETE Forms will be treated only if they are duly signed and submitted within the given deadline. Students are not allowed to exceed the maximum load by using the ADD and DELETE Forms. If a student registers for a course and does not wish to sit for the examination in that course, he/she must delete the course within the stipulated deadline. Any student who withdraws after the deadline and fails to sit for examinations in a course registered for will be automatically awarded an F grade in the course.

6. REGISTRATION FOR RESEARCH PROJECTS

- Students are to register for their projects in the penultimate year of their respective programmes and conclude the projects in the final year.
- The number of other courses to be registered for in that year should therefore be adjusted to accommodate the project.
- Projects are to be submitted not later than four (4) weeks after the final examination.
- Project submitted after the deadline would not be graded for the particular session.

7. MISSING RESULTS

The office of the Deputy Director (Academic Planning & Development) and the Heads of Department in conjunction with individual facilitators will try and resolve most missing result issues. However the following is to be noted:-

- All students who have outstanding results for examinations taken before the 1996/97 session (i.e. under the auspices of COSIT should re-register for those courses to enable them complete their programmes). This is in view of the fact that DLI started being directly responsible for the conduct of examinations and processing of students results from the 1996/97 session. Students who complain of missing results must show evidence of registration for such courses.

8. WITHDRAWAL FROM PROGRAMMES BY DULY REGISTERED STUDENTS

- **Withdrawal by Old Students**

  Students are free to withdraw from their programme of study at any time. However, such students will not be entitled to a refund of service charges except any unutilized portion of the module deposit. Where a student is asked to withdraw as a result of poor academic performance, no appeal will be entertained.

- **Withdrawal by New Students**

  Fresh students applying to withdraw from the programme within one month of payment of the service charge will forfeit 30% of the payment. All requests to withdraw from the course programme made after one month from the date of payment of service charge will be turned down and the payment already made will not be refunded.

9. REGISTRATION WITH THE UNIVERSITY MEDICAL CENTRE

On registration, students are enrolled in the Tertiary Social Health Insurance Programme (TSHIP). This qualifies them to access medical services at the Medical Centre. It is therefore obligatory that all registered students present themselves for screening at the Medical Centre as a means of ensuring that the students receive medical attention in the event of illness, especially during the Residential period.

Furthermore, all Medical Reports brought from other health facilities must be endorsed by the Director, Health Services of the University before it can be tendered and used for any academic purposes by the Institute.

10. CONDITIONS FOR PAYMENT OF REBATE ON SERVICE CHARGE

- Absence from Residential Period

  A student who has notified well in advance of inability to be present during

the Residential period of the programme would be allowed a 50% rebate. This is applicable to only the old students.

- Inability to Write Examinations
  Attendance at the Residential Programme but inability to write the examinations with cogent reasons would be entitled to 25% rebate.
- Inability of New Students to attend the Residential Programme
  Such students would forfeit their fees as there would be no rebate.

11. DEFERMENT OF ADMISSION

- Deferment of admission by new students will not be entertained. Those who fail to take up their admission must re-apply.
- In exceptional circumstances, a request for Deferment by a new intake may be considered provided the applicant has paid the full service charge of the academic year, filled and submitted the Registration Form. A request for deferment of admission under such circumstances would be treated on its own merits.
- New students who are granted Deferment are exempted from paying Leave of Absence Fee. The Service Charge for that year is however, not refundable.

12. LEAVE OF ABSENCE

Only registered students may apply for Leave of Absence subject to payment of the stipulated fee.

- All applications for Leave of Absence must reach the Institute Secretary in the course of the session. Applications received after the Residential period will not be entertained and the student may have to pay the full service charge for the session.

- Students who apply for Leave of Absence in arrears (i.e., after the commencement of the sessional examinations for the session in which the leave is required) will pay the full service charge payable for each year of absence as well as addition N1,000.00 to the leave of absence fee payable per year i.e., N3,000.00 as against N2,000.00 per year, in
  addition to late registration fee of N10,000.00.

- Applicants for Leave of Absence must complete the prescribed forms in duplicate and attach the copy of receipt of payment of the fees and other

necessary supporting documents e.g. Medical certificate, letter of transfer, etc.

- Leave of Absence will not be granted based on flimsy or unsupported reasons. Requests for Leave of Absence will be entertained only for cogent reasons.

- Leave of Absence is usually granted for a specific period of one academic session. Approval may be granted for an extension for an additional one year for good reason, but the student must apply afresh in each case.

- The maximum period of Leave of Absence (i.e., cumulative leave of absence) that can be taken for the whole duration of the programme is three years.

- Any student who has been on unauthorized leave of absence for three consecutive years would be regarded as having voluntarily withdrawn from the Institute.

- Students returning from leave of absence must inform the Institute in writing in good time at the beginning of the session.

13. PROHIBITION OF SALE AND PURCHASE OF HANDOUTS

The Senate of the University of Lagos prohibits the sale of handouts in any form to students. This is a deliberate policy of checking reported cases of exploitation of students. Therefore, students are strongly advised, in their own interest, not to purchase any handout or study materials from lecturers

Copies of any study materials or notes considered useful to students will be made available to the students by the Institute either through the Class representatives or through the Institute's Store. Other relevant Books and Course Texts could also be obtained at the University Bookshop.

14. REGULATIONS GOVERNING AWARD OF FIRST DEGREES

Duration

- The duration of the degree programme shall normally be five years for all the programmes in the Distance Learning Institute.
- For Direct Entry students into year 2, the duration of the degree programmes shall be four (4) years and three (3) years for Direct Entry students into year 3.
- Students are expected to complete the degree programme within a period not exceeding twice the number of years as indicated above (i.e., 6, 8 and 10 years as applicable).

Course Unit

A course unit is defined as equivalent to one hour of instruction per week per semester, or fifteen hours of instruction in a fifteen week semester.

- Every course is identified by a three letter code followed by three numbers, e.g. ACC 210, BUS 211, ECN 326, PAD 111, EDA 411, and the like.

Course Classification

Courses are classified into compulsory and elective.

- A Pre-Requisite course (PR) where specified is one which must be taken and passed before before a higher level course is taken. A pre-requisite course may be waived for a suitably qualified candidate by action of Senate.

- A Compulsory Course (C) is one which as the name indicates, is compulsory and must be registered for and passed by the student to obtain the degree.

- An Elective Course (E) is one which may be taken to make up the minimum requirement of units or to increase the choice of courses up to the maximum number of units allowed by the regulation.

- An Audited Course (AUD) is one for which the student did not register but attended its classes. It does not count towards his degree programme. The student may not necessarily take examination in the course.

- A University Required Course (UR) is a course that is compulsory for all students offering degree courses in the University; e.g. The General Studies Courses (GST). A UR course is however not counted towards degree classification.

Note: All students must take and pass 10 units of GST courses before graduation, irrespective of their entry point into the programme.

Continuous Assessment

The progress of a student in each course is continuously assessed by means of tests, written assignments, reports and such other means as may be appropriate and consistent with the objectives, and conduct of the course as determined by the Academic Board of the Institute.

Grading and Final Marks

Each course shall be graded on the basis of 100 marks with proportions of continuous assessment and course examination being determined by the Institute

Board. The proportion for continuous assessment varies from 30% to 50%. The minimum pass mark in any course is 40%.

The marks obtained by each student in every course shall be assigned appropriate letter grades and grade points (GP) as follows:

Marks (100%)	**Letter Grade**	**Grade Points**
70-100	A	5.00
60-69	B	4.00
50-59	C	3.00
45-49	D	2.00
40-44	E	1.00
0-39	F	0.00

a. All letter grades and grade points will appear on the results slips and permanent records. The following additional letters shall be used where appropriate.

AUX	-	Audited course only
EX	-	Exempted
WTD	-	Withdrawal from course
INC	-	Incomplete
P	-	Pass
S	-	Sick
A	-	Absent
M	-	Misconduct
D	-	Deferment.

b. After the seventh week of a session, a student who fails to complete the requirements for any course due to unforeseen reasons approved by the Senate will be given incomplete (INC) grade.

c. Transcripts of examination results shall be issued to students as appropriate at the end of each session. This is issued after an application is made by a student.

15. EXAMINATION RULES AND REGULATIONS

Examinations constitute a very important aspect of the University activities. Students are therefore advised in their own interest to give the Rules and Regulations guiding examinations, the attention and seriousness they deserve.

The following are some of the Rules and Regulations:

- Candidates must attend punctually at the times assigned to their papers, and must be ready to be admitted into the examination Hall thirty minutes before the time the examination is due to start. Candidates arriving more than thirty minutes after the examination has started shall be admitted only at the discretion of the Chief Invigilator.

- Similarly, except with the special permission of the Chief Invigilator, candidates may not leave the examination hall earlier than 30 minutes of the commencement of the examination. Also, candidates who have not submitted their examination scripts 15 minutes before the end of the examination shall remain seated till the end.

- Candidates must bring with them to the examination hall their own pens and pencils and any other materials, which may be permitted for the particular examination.

- The use of any paper other than the supplied answer sheet is not permitted. All rough work must be done in the answer booklet, and crossed neatly through. Supplementary answer books, even if they contain only rough work must be tied inside the main answer book.

- Answers must be written in English unless otherwise instructed.The answer to each question must be started on a separate page. Before handing in their scripts at the end of the examination, candidates must satisfy themselves that they have inserted in the appropriate places, their examination/matriculation number and number of the questions answered.

- The onus is on each candidate to ensure that his/her script is handed in to the Invigilator before leaving the hall. Except for some other authorized materials they may have brought with them, and the question paper, candidates are not allowed to remove, fold or mutilate any paper or material supplied by the University. In some examinations, candidates may not be allowed to take away the question paper. Only the student's matriculation number shall be used as Examination Number. The

student's name should not be entered. Any answer script bearing the candidate's name will NOT be graded and will be considered a case of examination misconduct.

EXAMINATIONS

1. Each course is normally examined at the end of the session in which it is offered.
2. The length of any examination shall be a period of not less than one hour and not more than three hours.

HARMONIZED PENALITIES/SANCTIONS FOR EXAMINATION MISCONDUCT (PHYSICAL AND VIRTUAL)

S/N	MISCONDUCT	PENALTY
1.	Impersonation or Faking of Identities	Expulsion
2.	Smuggling and Possession of Answer Script	Expulsion
3.	Destruction of unauthorized Materials	Expulsion
4.	Attacking or threatening Invigilators	Expulsion
5.	Plagiarism of Content	Expulsion
6.	Tendering unauthentic (fake)document	Expulsion
7.	Auto Coding Software and use of Team Viewer software to take control of students Computer remotely	Expulsion
8.	Hacking of question bank/system resulting to Content Leakage of questions	Expulsion
9.	Screen sharing/Mirroring to other devices/projectors of friends/classmates/family/experts to cheat	Rustication: one (1) session
10.	Cheating with Technological Devices/High-Tech Equipment e.g micro bluetooth powered devices-earbuds, augmented reality glasses, invisible smart watches, hard drives, USB among other things	Rustication: one (1) session
11.	Use of Smartphone/Smart Devices and Mobile Education apps, to retrieve automated recommended answers	Rustication :one (1) session

12.	Deliberate obstruction of proctoring Device	Rustication: one (1) session
13.	Presence of Family/Friends in Examination Room	Rustication: one (1) session
14.	Screen sharing/Mirroring to other devices and projectors of friends/classmate/family/experts to cheat.	Rustication: one (1) session
15.	Indecent Dressing(Dressing that does not conform with University Dress Code) Nudity	Rustication: one (1) session
16.	Smoking, drinking and other related vices	Rustication: one (1) session, and Referral to Students Disciplinary Board for Drugs and Drug-Related Offences.
17.	Failure to submit answer script	Rustication: one (1) session
18.	Possession and Copying from jottings of relevant materials on body parts/devices	Rustication: one (1) session
19.	Possession and Copying from unauthorized/written materials	Rustication: one (1) session
20.	Aiding and Abetting others to copy	Rustication: one (1) session
21.	Refusal to submit offending materials	Rustication: one (1) session
22.	Collaborative Copying	Rustication: one (1) session
23.	Refusal to Complete Examination Misconduct Forms	Rustication: one (1) session
24.	Unauthorized communication	1st Timer: Warning 2nd Timer: Rustication: One (1) Session
25.	Disruptive Behaviour	1st Timer: Warning

		2nd Timer: Rustication: One (1) Session
26.	Influencing Examination Official	1st Timer: Warning 2nd Timer: Rustication: One (1) Session
27.	Unauthorized Changing of Sitting Position	1st Timer: Warning 2nd Timer: Rustication: One (1) Session
28.	Possession of mobile telephone(s) and other devices in the examination hall, either in use or not	Rustication: One (1) session
29.	Taking examination in an environment that does not conform with the University Guidelines for Virtual Examination (For example: Writing of examinations in public/private transport, noisy areas etc)	Rustication: One (1) session
30.	Disobeying Examination Instructions	1st Timer: Warning 2nd Timer: Rustication: One (1) Session
31.	Recidivism	Expulsion (Except cases listed in 25- 28 above)
32.	Failure to appear before the Misconduct Panel	Suspension for 1 Session after which non-appearance leads to Expulsion
33.	Other related acts of Examination Misconduct not specifically stated	*Penalty shall be determined based on the recommendation of the Misconduct Panel.

Failure to take Examination in Course Registered for

A student who fails to take examination in courses for which the student have registered, without giving a reason accepted to the Board of Studies of the Faculty, is deemed to have failed the course.

Failure to Register for a Course in which a Student has Taken an Examination

If a student takes an examination in a course for which the student has not registered, no grade will be credited to such student.

REGRADING OF SCRIPTS AFTER AN EXAMINATION

Any student who wants his or her script in any Course to be re-graded must apply in writing to the Head of Department. Such application attracts a payment of N10, 000.00 which must be made to the Institute. In addition, the student must pay for the postal charge which is used to mail his or her script to an assigned external expert for re-marking. The student should be sure of his or her claim of irregular or erroneous marking before applying since his or her application does not guarantee success in the Course, except where the claims are genuine. Also, the process may take some time when external assessors delay in carrying out the assignment. However, the Head of Department is expected to follow-up on the assessor to avoid unnecessary delay.

16. ACADEMIC STANDING

1. The maximum periods a student can spend in studying a course in the Education Department are itemized below:

   For 3-year programme – 6 sessions
   For 4-year programme – 8 sessions
   For 5-year programme – 10 sessions

2. Any student whose Grade Point Average (GPA) is less than 1.00 for the first year shall be placed on probation.

3. A 100-level student whose sessional GPA is less than 1.00 for two consecutive sessions will be asked to withdraw from the course. This also applies to students admitted by Direct Entry.

4. Any student desiring transfer from one course to another shall not be admitted if it is certain that the student cannot complete the programme and graduate within the stipulated period for the course as in (1) above.

Computing the Grade Point Average and Cumulative Grade Point Average

The grade point average (GPA) is derived by calculating the average weighted score for all courses in a particular session. The average weighted score is obtained by dividing the weighted score by the total credit units.

The cumulative grade point average (CGPA) shall be obtained by: -

a. Multiplying the grade point assigned to the letter grade obtained in each course by the number of units assigned to the course to arrive at the weighted score for each course.
b. Adding the weighted scores for all courses taken up to that time.
c. Dividing the total weighted score by the total number of units.

If a student registers for and takes the examination in the following courses:

Course Code	**Units**	**Grades**	**Weighted**	**Scores**
FSC 111	3	5.0	3 x 5.0	= 15
FSC 112	3	5.0	3 x 5.0	= 15
FSC 113	2	4.0	2 x 4.0	= 8
FSC 114	2	5.0	2 x 5.0	= 10
FSC 115	2	2.0	2 x 2.0	= 4
STE 112	2	3.0	2 x 3.0	= 6
GST 105	2	2.0	2 x 2.0	= 4
Total	**16**			**62**

The student's GPA is 62/16 = 3.88 for the first session. This GPA of 3.88 places the student in Second Class Upper. For the second session, assuming the student offers a total of 20 units and the students weighted score 84, the GPA for that session will be 4.20. To obtain the cumulative GPA for the two sessions (two years), add 62 and 84 together and divide the total which is 146 by (16 + 20 = 36 units) to get 4.06. This implies that the student has improved on the first session performance.

Graduation Requirements

The B.Sc. in an Education programme shall be for five (5) years. For a candidate to be awarded the B.Sc., he/she must have passed the following;

i. All Compulsory Courses
ii. Year 1 entry – 132 units minimum
iii. Direct entry - 96 units minimum

17. CLASSIFICATION OF DEGREE

1. For the purpose of classification of degree, all courses taken by a student shall count except University courses requirements and those courses pass/fail. Degree classification shall be on the cumulative grade point average obtained by each student as follows:

First Class	**4.50 - 5.00**
Second Class Upper	**3.50 - 4.49**
Second Class Lower	**2.40 - 3.49**
Third Class	**1.50 - 2.39**
Pass	**1.00 - 1.49**

2. A student who has fulfilled all the course requirements by passing the required number of Course units, but whose final cumulative GPA is below 1.00, may be awarded a pass degree.

Conditions for the Award of Degrees

The programme of course offered by the Distance Learning Institute which leads to the award of a Bachelor of Science (Honors) Degree is based on performance and good conduct.

LIST OF FACILITATORS FOR BIOLOGY

NAME	QUALIFICATION	DESIGNATION
Olowokudejo, James D.	*B.Sc. (Lagos),Ph.D. (Reading), F.L.S. (London) LEAD FELLOW*	Adj. Professor
Odjegba, Victor J.	*B.Sc., M.Sc. (Benin), Ph.D. (Ibadan)*	Adj. Associate Professor
Akinsanya, Bamidele	*B.Sc., M.Sc., Ph.D. (Ibadan)*	Adj. Associate Professor
Ogunkanmi, Liasu A.	B.Sc. (OAU), M.Sc., Ph.D (Lagos)	Adj. Associate Professor
Kadiri, Akeem B.	*B.Sc. (Ed.), M.Sc., Ph.D. (Lagos)*	Adj. Associate Professor
Taiwo, Idowu A.	*B.Sc., M.Phil., Ph.D. (Lagos)*	Adj. Associate Professor
Ayolabi, Christiana (Mrs.)	*B.Sc., M.Sc., Ph.D.*	Adj. Associate Professor
Anikwe, Joseph C.	*BSc.; MSc.; Ph.D.(Ibadan)*	Adj. Associate Professor
Onadeko, Abiodun B.	*B.Sc., M.Sc., Ph.D. (Lagos)*	Adj. Associate Professor
Njoku, Kelechi L.	*B.Sc. (Calabar), M.Sc., Ph.D. (Lagos)*	Adj. Associate Professor
Ebabhi, Abosede M. (Mrs.)	*BSc.; MSc.; Ph.D. (Lagos)*	Lecturer I
Oladele, Esther O. (Mrs.)	*B.Sc (Ed.). (Illorin); MSc.; Ph.D. (Lagos)*	Lecturer I
Buraimoh,Olanike M. (Mrs)	*B.Sc. (Illorin), M.Sc., Ph.D. (Lagos)*	Adj. Lecturer I
Oloyede, Adeola M.	*B.Sc., M.Sc., Ph.D. (Lagos)*	Adj. Senior Lecturer
Sifau, Mutiu O.	*B.Sc., M.Sc., Ph.D. (Lagos)*	Adj. Lecturer I
Adeogun, Oluwagbenga O.	*B.Sc.,(LASU) M.Sc., Ph.D. (Lagos)*	Adj. Lecturer I
Samuel, Temitope O. (Mrs)	*B.Sc., M.Sc., Ph.D. (Lagos)*	Adj. Senior Lecturer
Iroanya, Onyekachi O. (Mrs)	*B.Sc., M.Sc., Ph.D.*	Adj. Senior Lecturer

Adewumi, Olusoji O.	*B.Sc. (LASU); PGD Comp. Sc.; MSc., Ph.D. (Lagos)*	Lecturer I
Bolarinwa, Kehinde A.	*BSc.; MSc.; Ph.D. (Lagos)*	Lecturer II
Adetoro, Fuoad A.	*BSc.; MSc.; Ph.D. (Lagos)*	Adj. Lecturer I

LIST OF FACILITATORS FOR CHEMISTRY

NAME	Qualification	Designation
Asekun, Olayinka T. (Mrs.)	BSc. (OOU), MSc. (Lagos), Ph.D. (Ibadan), MCSN, PICCON	Adj. Professor
Adams, Luqman A.	BSc., MSc., Ph.D (Lagos), Ph.D. (Texas)	Adj. Professor
Fashina, Tolulope M. (Mrs.)	BSc., MSc., Ph.D (Lagos), MACS, FICCON, MCSN, MRSC	Adj. Associate Prof
Oyeyiola, Aderonke O. (Mrs.)	BSc, MSc. (Ibadan), Ph.D. (Lagos)	Adj. Associate Prof
Alani, Rose A. (Mrs.)	BSc. (ABU), MSc.(UNIPORT), Ph.D. (Lagos)	Adj. Senior Lecturer
Akinbulu, Isaac A.	BSc. (Ado- Ekiti), MSc. (Lagos), Ph.D. (South Africa)	Adj. Associate Prof
Ogunbayo, Taofeek B.	BSc. (OOU), MSc.(Lagos), Ph.D. (South Africa)	Adj. Senior Lecturer
Osibote, Elizabeth A.S. (Mrs)	BSc. (Ibadan), PGDE (LASU), MSc. Ph.D. (Lagos)	Adj. Senior Lecturer
Agunbiade, Folusho O.	*BSc.; MSc.; Ph.D.*	Adj. Associate Prof
Whenu, Oluwakemi A.` (Mrs)	BSc. (Ife), Ph.D. (UH Texas)	Adj. Senior Lecturer
Ejiah, Felicia N. (Mrs.)	BSc. (Jos), MSc. Ph.D. (Lagos)	Adj. Senior Lecturer
Nejo, Ayorinde (Mrs.)	BSc. (UNILAG), MSc. Ph.D. (South Africa)	Adj. Senior Lecturer
Akeem Abayomi	BSc., MSc., Ph.D. (Lagos)	Adj. Senior Lecturer
Dueke-Eze, Cordelia U. (Mrs.)	BSc. (Calabar), MSc. (Lagos), Ph.D. (Lagos)	Adj. Senior Lecturer
Olasupo, Idris A.	BSc., MSc., Ph.D. (Lagos)	Adj. Senior

		Lecturer
Eruola, Adeyinka O. (Mrs.)	BSc. (FUNAAB), MSc. (Unilag), Ph.D. (FUNAAB)	Adj. Chief Lecturer
Mrs. Keshinro, Olabisi	BSc. (Unilag), M.Ed. (Unilag)	Adj. Chief Lecturer
Bamgbade, Elizabeth O. (Ms.)	BSc./Ed (O.O.U.), M.Ed. (Unilag), MSc. (Unilag)	Asst. Lecturer
Adesoji, Adedoyin O.	B.Sc.; MSc	Asst. Lecturer

LIST OF FACILITATORS FOR MATHEMATICS

NAME	QUALIFICATION	DESIGNATION
Okunuga, Solomon A	*BSc; MSc (Ilorin); PhD (Lagos).*	Adj. Professor
Adamu, M.	*BSc; MSc; PhD (Lagos).*	Adj. Associate Professor
Fenuga, O. J.	*BSc; MSc (Ibadan); PhD (LAUTECH).*	Adj. Snr. Lecturer
Adeniyan, Adetunji	*BSc; MSc; PhD (Lagos)*	Adj. Snr. Lecturer
Akewe, Hudson	*BSc (AAU); MSc; PhD (Lagos).*	Adj. Snr. Lecturer
Mogbademu, A. A.	*BSc; MSc; PhD (Lagos).*	Adj. Snr. Lecturer
Akinfenwa, O. Adeseye	*BSc (Ilorin); MSc (Lagos); PhD (China).*	Adj. Snr. Lecturer
Nkemnole, E. Bridget (Mrs.)	*BSc (DELSU); MSc; PhD (Lagos).*	Adj. Snr. Lecturer
Osilagun, Johnson A.	*BSc (OSU); MSc (Ibadan); PhD (Ilorin).*	Adj. Senior Lecturer
Akarawak, Emo E. (Mrs)	*BSc (UNICAL); MSc; PhD (Lagos).*	Adj. Snr. Lecturer I
Ubaka-Onyeka, J. N. (Mrs)	*BSc (UNN); MSc; PhD (Lagos).*	Adj. Lecturer I
Abdulganiy, Ridwanulahi Iyanda	*NCE;BSc (Ed); MSc; PhD (Lagos)*	Lecturer II
Akinnukawe, B. I. (Mrs)	*BSc (Benin); MSc; PhD (Lagos).*	Adj. Lecturer I
Isede, H.	*BSc; MSc; PhD*	Adj. Lecturer II
Ogundeji, Rotimi Kayode	*BSc; MSc; PhD (Lagos)*	Adj. Lecturer I
George, O.O.	*BSc; MSc; Ph.D. (Lagos)*	Adj. Asst. Lecturer
Adetunji, P.O. (Mrs)	*BSc; MSc*	Adj. Asst. Lecturer

LIST OF FACILITATORS FOR PHYSICS

NAME	QUALIFICATION	DESIGNATION
Adeloye, Adebowale B.	BSc; MSc; PhD	Professor
Oyeyemi, Elijah O.	BSc; MSc; PhD	Adj. Professor
Ozebo, Vitalis C.	BSc, MSc.; PhD	Adj. Associate Professor
Olusola, Olasunkanmi O.	BSc, MSc; PhD	Adj. Associate Professor
Akala, Oke-ovie A.	BSc; MSc; PhD	Adj. Associate Professor
Oyebola, Olusola O.	BSc; MSc; PhD	Adj. Senior Lecturer
Olatinsun, Olawale B.	BSc; MSc; PhD	Adj. Senior Lecturer
Adewale, Adekola O.	B.Sc, M.Sc.; PhD	Adj. Senior Lecturer
Olopade, Muteeu	BSc, MSc.; PhD	Adj. Senior Lecturer
Erusiafe, Nald E.	BSc, MSc.; PhD	Adj. Senior Lecturer
Ishola, Kehinde S.	BSc, MSc; Ph.D	Adj. Lecturer I
Ojo, Kayode S.	BSc, MSc; Ph.D	Adj. Lecturer I
Adewoyin, Adeyinka D.	BSc, MSc; Ph.D	Lecturer II
Odeyemi, Olumide O.	BSc; MSc; PhD	Adj. Lecturer II
Olugbon, 'Busola	BSc, MSc. PhD;	Adj. Lecturer II
Adedeji, Micheal	BSc, MSc; Ph.D	Adj. Asst. Lecturer
Ajayi, Kayode F.	BSc; MSc;	Asst. Lecturer
Imafidon, Lawrence O.	BSc, MSc.	Adj. Asst. Lecturer

LIST OF FACILITATORS FOR EDUCATION

NAME	QUALIFICATION	DESIGNATION
Udeani, Uchenna	B.Sc.; PGDE; MEd; Ph.D.	Director/Professor
Odogwu, Helen N.	BSc; MSc; Ph.D.	Adj. Professor
Madumere, S.C.	BSc; MEd; Ph.D.	Professor
Afolabi, Folashade	BSc; MSc; Ph.D.	Senior Lecturer
Adeoye, Babatunde F.	BSc; MSc; Ph. D.	Adj. Senior Lecturer
Sule, Seidu A.	BSc; MEd; Ph.D.	Adj. Senior Lecturer
Oladipo, Adenike J.	BSc (Ed); MEd; Ph.D.	Lecturer I
Adeniyi, Comfort O.	BSc; MEd; Ph.D.	Lecturer I
Modebelu, Obiageli J.	B.Ed.;MEd.;Ph.D.	Lecturer I
Uzoka, Ngozi E.	BA; MEd; Ph.D.	Adj. Associate Prof
Amadi, Martha N.	BA; MEd; Ph.D.	Adj. Senior Lecturer
Akinsanya, Patrick	B.Ed.; MEd.; Ph.D.	Adj. Lecturer I
Okunuga, Rachel O.	BSc; MSc; Ph.D.	Adj. Senior Lecturer
Adegun, Adedunni O.	B.Ed.; MEd; Ph.D.	Lecture I
Fashina, Abiola Y.	B.Ed.; MEd.; Ph.D.	Lecturer II
Reju, Comfort O.	BSc. (Ed); M.Tech.	Lecturer II
Ige, Olumide	BEd; MEd; Ph.D.	Adj. Senior Lecturer
Keshinro, Olabisi	B.Sc., M.Sc.	Adj. Lecturer II
Babajide, Veronica B.	BEd; MEd; Ph.D.	Adj. Senior Lecturer
Akinoso, Sabainah A.	BEd; MEd; Ph.D.	Adj. Lecturer I
Oguntunde, Bidemi	BEd; MEd; Ph.D.	Adj. Lecturer II

LIST OF FACILITATORS FOR ECONOMICS EDUCATION

S/N	NAME	DESIGNATION	QUALIFICATIONS	AREA OF SPECIALIZATION
1	Dr. Oluwatosin, W.L.	Associate Prof	B.Sc, M.Sc, Ph.D.	Economics Education
2	Prof. Shaibu, Muibi O.	Professor	B.Sc, M.Sc, Ph.D.	Macroeconomics Analysis
3	Prof. Akinleye, Simeon O.	Professor	B.Sc, M.Sc, Ph.D.	Development Economics
4	Dr. Lawanson, Olukemi I.	Associate Professor	B.Sc, M.Sc, Ph.D.	Labour Economics
5	Dr. Lotto, Margaret A.	Associate Professor	B.Sc, M.Sc, Ph.D.	Project Analysis
6	Dr. Adeoye, Babatunde W.	Associate Professor	B.Sc, M.Sc, Ph.D.	Monetary Economics
7	Dr. Oke, David M.	Senior Lecturer	B.Sc, M.Sc, Ph.D.	Development Economics
8	Dr. Adebisi, Ademola A.	Lecturer I	B.Sc, M.Sc, Ph.D.	Monetary Economics
9	Dr. Adekunle, Babatunde S.	Lecturer I	B.Sc, M.Sc, Ph.D.	Monetary Economics
10	Dr. Oyelami, Lukman O.	Lecturer II	B.Sc, M.Sc, Ph.D.	International Economics

LIST OF FACILITATORS FOR BUSINESS EDUCATION

S/N	NAME	DESIGNATION	HIGHEST QUALIFICATION	AREA OF SPECIALIZATION
1	Prof. J.N. Mojekwu	Professor	Ph.D.	Social Statistics
2	Dr. B.N. Dixon-Ogbechi	Associate Professor	Ph.D.	Marketing
3	Dr. O.J. Oluwafemi	Senior Lecturer	Ph.D.	Human Resource Management
4	Dr. E.A. Aromolaran	Senior Lecturer	Ph.D.	Business Education (Office Technology and Management)
5	Dr. G.B. Adeyeye	Lecturer I	Ph.D.	Taxation and Tax Management
6	Dr. J.O. Ige	Lecturer I	Ph.D.	Financial Accounting
7	Mr. T.C. Obiwuru	Lecturer I	M.Phil.	Quantitative Techniques
8	Dr. N.A. Ishola	Lecturer II	Ph.D.	Business Education (Accounting Education and Management)
9	Dr. J.A. Olorunmaye	Lecturer II	Ph.D	Business Education (Management)
10	Mr. O.V. Falobi	Assistant Lecturer	M.Ed.	Business Education (Entrepreneurship and Management)
11	Mr. O.E. Alao	Assistant Lecturer	M.Ed.	Business Education (Office Technology and Human Resource Management)

LIST OF FACILITATORS FOR ENGLISH EDUCATION

S/NO	NAME	DESIGNATION	QUALIFICATIONS	AREA OF SPECIALIZATION
1.	Opara, C. Carol (HOD)	Professor	B.A Educ/French 1975 Dip. D'etu des Fran 1974 M.Ed. Curr. Studies/Lang. 1979 Ph.D Curr. Studies/French 1990	French Education
2.	Ikonta, Nonye R.	Professor	B.A Lang. Arts, 1980 M.Ed. TESL 1984 Ph.D. TESL 1992	English Language Education
3.	Daramola, M.A.	Professor	B.A, M.A, Ph.D.	English Language
4.	Maduekwe, Anthonia A.	Professor	D ip. Librarianship 1979 B.Ed. English 1989 M.Ed. TESL 1991 Ph.D. (Curr./English)TESL 1998	English Language Education
5.	Igwe, Rosita O.	Professor	B.A ED. CRS, M.Ed. Curr; Ph.D. Curr.	Curriculum Theory
6.	Okoro, O.	Professor	B.A, M.A, Ph.D.	English Language
7.	Nwagbara, A.U.	Professor	B.A, M.A, Ph.D.	English Language
8.	Anyokwu, C.C.	Associate Professor	B.A, M.A, Ph.D.	English Language
9.	Adeosun, Adeola Oyenike	Associate Professor	B.A Ed. English (Hons);1994 M.Ed. English. Lang. 1998 PGD (Journalism) 2003 M.A Literature, 2013 Ph.D. Educ./English 2003	English Language Education with further Specialisation in Literature
10.	Oloko, P.	Senior Lecturer	B.A, M.A, Ph.D.	English Literature

11.	Adeniji, A.F.	Senior Lecturer	B.A, M.A, Ph.D.	English Literature
12.	Shodipe, M.S.A.	Senior Lecturer	B.A, M.A, Ph.D.	English Language
13.	Afolayan, B.F.	Senior Lecturer	B.A, M.A, Ph.D.	English Literature
14.	Ntekim-Rex, Y.O.	Lecturer 1	B.A, M.A, Ph.D.	English Language
15.	Adeoye, Feyisayo	Lecturer 1	B.A, M.A, Ph.D.	English Language

LIST OF FACILITATORS FOR EARLY CHILD HOOD EDUCATION

S/N	NAME	DESIGNATION	QUALIFICATIONS	AREA OF SPECIALIZATION
1.	Osanyin, Florence A.	B.A. Ed, M.Ed. Ph.D.	Early Childhood Education	Adj. Professor
2.	Oluwatosin, Wuraola L.	B.Sc., M.Sc., Ph.D.	Economics Education	Associate Professor
3.	Sopekan, Oludola S.	NCE, B.A.Ed., M.Ed., Ph.D.	Early Childhood Education	Senior Lecturer
4.	Adebayo, Ayotunde	B.A. Ed., M.Sc. Ph.D.	Social Studies Education	Senior Lecturer
5.	Afolabi, Folashade	B.Sc. Ed., M.Ed., Ph.D	Science Education	Senior Lecturer
6.	Ige, Olumide	B.A. Ed., M.Ed., Ph.D.	Early Childhood Education	Senior Lecturer
7.	Omotuyole, Christy	B.A. Ed., M.Ed., Ph.D.	Early Childhood Education	Lecturer I
8.	Komolafe, Adefunke T.	B.Ed., M.Ed., Ph.D.	Early Childhood Education	Lecturer I
9.	Oladipo, Adenike J.	B.Sc. Ed., M.Ed., Ph.D	Biology Education	Lecturer I
10.	Adeniyi, Comfort O.	B.Sc. Ed., M.Ed., Ph.D	Mathematics Education	Lecturer I
11.	Moji Manuel	B.A. Ed., M.Ed., M.Phil., Ph.D.	Early Childhood Education	Lecturer II
12.	Fashina Abiola F.	B.Sc. Ed., M.Ed., Ph.D	Guidance and counselling Early Childhood Education	Lecturer II

NAMES OF COURSE ADVISERS FOR EDUCATION DEPARTMENT 2019/2020 ACADEMIC SESSION

COHORT	LECTURER IN CHARGE	YEAR(S)
BIOLOGY	Dr. Esther Oladele	5
	Dr. Oladipo Adenike J.	3
	Dr. Ebabhi Bosede	2
	Dr. Soji Adewunmi	4
	Dr. Kehinde A. Bolarinwa	1,6
PHYSICS	DR. Folashade Afolabi	5
	Dr. Adeyinka Adewoyin	3,4, 6
	Mr. Kayode Ajayi	1,2
CHEMISTRY	Ms. Bamgbade Elizabeth	4,5,6
	Mrs. Adesoji Adedoyin	1,2,3,
MATHEMATICS	Dr. Comfort O. Adeniyi	1,2
	Dr. C.O. Reju	3,4
	Dr. Ridwan I. Abdulganiy	5,6
EDU. ENGLISH	Dr. O. J. Modebelu	1
BUS.EDU.	Dr. Bosede Ebabhi	1
EDU. ECONOMICS	Dr.Oladipo Adenike J.	1
EARLY CHILDHOOD EDU.	Dr. Abiola Y. Fashina	1

LIST OF ADMINISTRATIVE AND TECHNICAL STAFF

Administrative staff

S/N	NAME OF STAFF	RANK	QUALIFICATIONS
1	Mrs. Akinyeye, Adeola A.	Principal Assistant Registrar/Institute Secretary	B. A. (IFE), M.A. (IBADAN)
2	Olaleye, Adebayo I.	Principal Accountant	B.Sc., M.Sc. (UNILAG), FCA
3	Boriowo, Olajide	Asst. Chief Executive Officer (Accts.)	ND (YABATECH), B.Sc., (UNILAG)
4	Dada, Olusegun I.	Senior Assistant Registrar	L.L.B, L.L.M (UNILAG)
5	Aju, Sola	Senior Assistant Registrar	B.Sc. (UNAD), MILR, M.Sc. (UNILAG), ACIPM
6	Ajoku-Okoro, Viviano O.	Principal Executive Officer I	B.A., M.A. (UNILAG)
7	Ikenye, Michael I.	Principal Executive Officer I (Accts.)	HND (YABATECH), PGD
8	Adunola, B. Abosede	Asst. Chief Data Processing Officer	Advanced Dipl. in ADCASA, B.Ed. (UNILAG)
9	Aremu Modupe S.	Asst. Chief Data Entry Operator	B.Sc. (UNILAG)
10	Ohiomoba, Cecilia	Principal Data Processing Officer	Advance Dipl. In Computer & Secretarial Study (UNILAG)
11	Odebo, Mathew Oluwaseun	Principal Executive Officer I (Accts.)	B.Sc. (UNILAG)
12	Oloruntoba, Theophilus	Principal Executive Officer II	B.Sc. (LASU), Advance. Dip. Public Admin. (OAU)
13	Akinola, Sylvester	Asst. Chief Executive Officer (Accts.)	HND (Kwara Poly)
14	Ifarajimi, Oluwaseun F.	Principal Executive Officer II (Accts.)	B.Sc. (OOU)
15	Idoko, Cyprian E.	Principal Executive Officer II	Dipl. In Comp., B.Sc. (UNILAG)

16	Lamidi Ismaila A.	Principal Executive Officer II	B.Sc. (UNILAG)
17	Shodeinde J. Bolaji	Senior Accountant	B.A., M.Sc. (UNILAG), ACA
18	Adeloye, Gabriel O.	Senior Accountant	B.Sc. (EKPOMA), (ANAN)
19	Adegbiji, Peter A.	Administrative Officer I	OND (YABATEC), B.Sc. (LASU), PGD (UNILAG)
20	Amusa, Esther	Senior Executive Officer	B.Sc., MILR (UNILAG)
21	Ukuanovwe, Akponovo N.	Administrative Officer I	B.Sc. (Ed.) (UNILAG)
22	Apena, Fatimoh A.	Accountant I	B.Sc., M.Sc. (UNILAG)
23	Ibraheem, Akeem	Accountant I	B.Sc. (LASU)
24	Joshua Omoshola	Chief Operating System	B.Sc. Mass Com
25	Adekoya Adebanke	Higher Executive Officer	B.Sc. (UNILAG)
26	Ijie Anthony N.	Assist. Chief Data Processing Officer	Adv. Dipl. in Computer & Mgt.
27	Ogbonnah, Josephine C.	Assist. Chief Data Processing Officer	Adv. Dipl. in Desktop Mgt.; OND
28	Alao, Leah A.	Senior Data Processing Officer	HND (YABATECH), B.Sc. (UNILAG)
29	Shittu, Babatunde B.	Senior Library Officer	B.Sc. (UNN), Dipl. In Lib. Info Sc. (UNILAG)
30	Gold Edward Akotamenre	Assistant Chief Executive	B.A. (IBADAN), MPA (UNILAG)
31	Aikpokhio, Monday	Higher Executive Officer	OND (THE POLY, IBADAN), B.Sc. (LASU)
32	Olaore Abiola	Studio Manager	B.A. (IBADAN), Profe. Cert. in Media Tech.
33	Daniel, Eyo Daniel	Chief Porter	B.Sc. (UNILAG)
34	Odufuye, Samuel	Senior Transport Officer	Trade Test III, II, I
35	Ayandokun, Moses A.	Senior Transport Supervisor	Trade Test III, II, I
36	Jaiyeola, Rose	Senior Typist I	Advance Course in Comp. (UNILAG)
37	Kehinde, Elizabeth Adejoke	Senior Data Entry Operator	Advanced Diploma in Comp. (FCET Akoka)

38	Adeusi, Adebayo J.	Chief Clerical Officer	S.S.C.E.
39	Ogbe, B. Kehinde	Supervisor Porter	Dipl. in Security Management
40	Fasasi, Titilayo F.	Administrative Assistant I	S.S.C.E., Adv. Dipl. in Comp Administration, (UNILAG)
41	Olubode, Oludare A.	Administrative Assistant I	S.S.C.E.
42	Lawson, Olayiwola	Senior Transport supervisor	Trade Test III, II, I
43	Nosakhare, Eghosa F.	Senior Driver I	Trade Test III, II, I
44	Bakare, Bashiru	Senior Driver I	Trade Test III, II, I
45	Nwankwo C. Eucharia	Administrative Assistant II	S.S.C.E.
46	Godwin Kammah	Administrative Assistant II	S.S.C.E., OND in Computer Science (LASPOLY)
47	Shoyombo, Helen I.	Senior Porter	S.S.C.E.
48	Okoli, Celestina Udoka	Chief Porter	S.S.C.E.
49	Ikpon-Nyono Grace	Office Assistant I	S.S.C.E.
50	Jones, Ubong S.	Transport Supervisor	S.S.C.E. Trade Test III, II, I

Technical staff

S/N	**NAME OF STAFF**	**RANK**	**QUALIFICATION**
1	Ilesanmi, Oludare M.	Assistant Chief Technical Officer	NCE (FCT, AKOKA), B.Sc. (UNAD)
2	Fambegbe, Emmanuel	Senior Systems Analyst	B. Tech. (FUTA)
3	Ileogben, John	Senior Workshop Supervisor	Trade Test III, II, I
4	Olawale, Kazeem	Higher Technical Officer	HND (YABATECH)

COURSE TITLE, COURSE CODE AND COURSE DESCRIPTION

B.Sc. EDUCATION BIOLOGY

YEAR ONE NEW CURRICULUM

S/N	COURSE CODE	COURSE TITLE	STATUS	UNITS
COMPULSORY COURSES				
1.	GST 102	Philosophy, Logic & Philosophy of Science	C	2
2.	GST 103	Nigerian People and Cultures	C	2
3.	GST 105	Use of English	C	2
4.	FED 121	General Principles of Teaching	C	2
5.	FSC 111	Introductory Biology	C	3
6.	FSC 112	Introductory Chemistry I	C	3
7.	FSC 113	Introductory Computer Science	C	3
8.	FSC 114	Introductory Mathematics	C	3
9.	FSC 115	Introductory Physics I	C	3
10.	BTN 121	General Botany	C	3
11.	ZLY 111	Introductory Zoology I	C	2
12.	ZLY 121	Introductory Zoology II	C	2
ELECTIVE COURSES				
13.	CHM 121	Introduction to Chemistry II	E	3
14.	CHM 122	Experimental Chemistry I	E	2
15.	PHS 121	Introductory Physics II	E	3
16	PHS 123	Introductory Practical Physics	*E	2
TOTAL UNITS OF COMPULSORY COURSES				**30**
TOTAL UNITS OF ELECTIVE COURSES				**10**

B.SC. EDUCATION BIOLOGY COURSES

YEAR TWO CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	FED 100	Introduction to the teaching Profession	2C	102
2.	GST 105	Use of English	2R	107

3.	GST 102	Philosophy and Logic	2R	109
4.	BTN 101	General Biology I	3C	099
5.	FSC 101	Introductory Biology	3C	093
6.	FSC 102	Introductory Chemistry	3C	094
7.	FSC 103	Introductory Computer Science	3C	095
8.	FSC 104	Introductory Mathematics	3C	096
9.	FSC 105	Introductory Physics	3C	097
10.	ZLY 101	General Biology II	3C	103
11.	CHM 101	Introductory Chemistry	4C	100
12.	CHM 102	Experimental Chemistry I	2	101
			32	

YEAR TWO NEW CURRICULUM

S/N	COURSE CODE	COURSE TITLE	STATUS	UNITS
COMPULSORY COURSES				
1.	GST 211/201	General African Studies I	C	2
2.	FED 212	Foundations of Education	C	2
3.	FED 213	Introduction to Educational Psychology	C	2
4.	FED 242/222	Elements of Special Education	C	2
5.	STE 222	Teaching Integrated Science at Basic 7 - 9	C	2
6.	BTN 211	Variety of Plant I	C	3
7.	BTN 222	Introduction to Ecology	C	3
8.	CBG 211	Introduction to Cell Biology	C	3
9.	MIC 211	Introductory Microbiology	C	3
10.	ZLY 211	General Zoology	C	3
11.	ZLY 221	Animal Structure and Function	C	3
ELECTIVE COURSES				
12.	ZLY 222	Man and the Environment	E	2
13.	CHM 213	Basic Organic Chemistry I	*E	3

14.	CBG 224	Introductory Developmental Biology	*E	2
15.	ZLY 227	Animal Ecology	E	2
16.	ZLY 212	Animal Histology	E	2
18.	ZLY 224	Principles of Animal Systematics	E	2
TOTAL UNITS OF COMPULSORY COURSES				**28**
TOTAL UNITS OF ELECTIVE COURSES				**13**

YEAR TWO OLD CURRILUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	GAS 201	General African Studies I	2R	108
2.	EDA 201	History & Dev. Of Edu. In west Africa	2C	113
3.	EDF 211	Introduction to Philosophy of Education	1C	128
4.	EDF 220	Human Learning	1C	115
5.	STE 201	General Principle of Teaching	2C	125
6.	HKE 251	PERSONAL Health and Physical Fitness	2E	134
	OR			
	ADE 201	Foundation of Adult Education	2E	110
7.	BTN 201	Variety of Plants I	3C	112
8.	BTN 202	Variety of Plants II	3C	123
9.	ZLY 201	General invertebrate Zoology	3C	119
10.	ZLY 202	General vertebrate Zoology	3C	132
11.	BIY 201	Introductory Cell Biology	3C	111
			30	

YEAR THREE NEW CURRICULUM

S/N	COURSE CODE	COURSE TITLE	STATUS	UNITS
COMPULSORY COURSES				
1.	FED 311	Basic Principles of Curriculum Development and Instruction	C	2
2.	FED 313	Measurement & Evaluation	C	3
3.	FED 314	Introduction to Educational Technology & ICT	C	2
4.	FED 321	Research Methods and statistics	C	2
5.	BTN 221/321	Variety of Plant II	C	3
6.	BTN 311	Plant Physiology I	C	3
7.	CBG 312	Genetics I	C	4
ELECTIVE COURSES				
8.	BTN 312	Flowering Plants Systematics	*E	3
9.	ZLY 313	General Entomology	*E	3
10.	ZLY 317	Animal Biodiversity	E	2
11.	CBG 311	General Ecology	*E	3
TOTAL UNITS OF COMPULSORY COURSES				**19**
TOTAL UNITS OF ELECTIVE COURSES				**11**

YEAR 3 OLD CURRICULU

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	STE 202	Microteaching & Classroom Observation of Behavior	2C	126
2.	GST 202	General African Studies II	2R	122
3.	EDA 202	The Development of	2C	114

		Educational Administration in Nigeria (1960 – date)		
4.	EDF 221	Growth and Development	1C	128
5.	EDF 222	Measurement and Evaluation	2C	116
6.	EDA 305	Financing Education (Required)	2C	147
7.	STE 203	Teaching Biology at JSS	2C	127
8.	MIC 201	Introductory Microbiology	3C	118
9.	CHM203	Basic Organic Chemistry	4E	120
10.	CHM205	Experimental Chemistry III	4C	124
11.	BIY 301	General Ecology	4C	136
12.	STE 301	Introduction to Education Technology	2C	138
			32	

YEAR FOUR NEW CURRICULUM

S/N	COURSE CODE	COURSE TITLE	STATUS	UNITS
			COMPULSORY COURSES	
1.	GST 307	Entrepreneurship and Corporate Governance	C	2
2.	FED 414	Teaching Practice	C	6
3.	STE 323	Teaching Biology at SSS	C	2
4.	ZLY 321	Comparative Animal Physiology	C	3
5.	BTN 321	Plant Physiology II	C	3
6.	BTN 323	Plant Anatomy	C	3
7.	CBG 326	Biological Techniques	C	2
8.	STA 121	Statistics for Scientist	C	3

				ELECTIVE COURSES
9.	CBG 324	Evolution 1	E	3
10.	ZLY 326	Applied Entomology	E	3
11.	ZLY 413	Environmental Assessments	E	2
12.	BTN 323	Introduction to Horticulture	E	2
13.	BTN 313	Mycology1	E	3
TOTAL UNITS OF COMPULSORY COURSES				**24**
TOTAL UNITS OF ELECTIVE COURSES				**13**

YEAR 4 OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	FED 316A	Conducting & Reporting Research in Edu	1C	149
2.	FED 317	Teaching Practice	3C	150
3.	EDA 305	Financing Education in Nigeria	2C	147
4.	ADE 322	Mass Media & Methods of Distance Edu	2E	141
	OR			
	HKE 357	Safety Education	2E	144
5.	STE 313	Teaching Biology at SSS	3C	139
6.	BTN 301	Plant Physiology I	3C	137
7.	BIY 302	Genetics I	4C	145
8.	BTN 302	Plant Physiology II	3C	703
9.	BTN 307	Flowering Plant Systematic	2E	142
10.	STE314	Teaching Science at SSS Level	3C	146
11.	PHS 302	Quantum Mechanics I	2C	387

YEAR FIVE NEW CURRICULUM

S/	COURSE CODE	COURSE TITLE	STATUS	

N				UNITS
				COMPULSORY COURSES
1.	FED 413	Introduction to Educational Management	C	2
2.	FED 423	Guidance & Counseling for Teachers	C	2
3.	FED 428	Project	C	3
4.	STE 423	Curriculum Development in Biology	C	3
5.	CBG 426	Population Ecology	C	3
6.	BTN 413	Economic Botany	C	3
				ELECTIVE COURSES
7.	ZLY 425	Apiculture and Bee Keeping	E	3
8.	BTN 414	Mycology II	E	2
9.	BTN 415	Plant Physiology III	E	3
10.	BTN 421	Plant and Environmental Pollution Monitoring	E	2
11.	STI 426	Integrated Science Practical (Biology)	E	2
TOTAL UNITS OF COMPULSORY COURSES				**16**
TOTAL UNITS OF ELECTIVE COURSES				**12**

YEAR 5 OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	STE 401	Basic Principle in Curriculum Development	2C	080
2.	EDA 401	The Organization of Primary Education in Nigeria	2C	140
3.	FED 316 B	Conducting and Reporting Research	1C	449
4.	MAT 317	Statistics for Biologists	2C	143
5.	BIY 304	Evolution I	2C	154
6.	BIY 402	Evolution II	2C	702
7.	BTN 303	Mycology	3C	078

8.	FED 416	Project	3C	085
9.	FED 417	Teaching Practice	3C	086
10.	GST 307	Entrepreneurship	3C	091
			17	

YEAR 6 OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	STATUS	UNITS
1.	HKE 421	Contemporary Issues in Physical (or ADE 432) Health Education, Recreation and sports	2	E
3.	EDF 417	Continuous Assessment & Guidance Tools	2	C
4.	EDA 402	Emergent Problems in Nigerian Education	2	C
5.	STE 413	Curriculum in Biology	3	C
6.	BIY 406	Population Ecology	4	C
7.	BTN 406	Plant Physiology III	3	C
8.	ZLY 407	General Entomology	3	C
9.	ZLY 408	Applied Entomology	3	C
			23	

Summary of number of compulsory and elective courses to be taken/available at each Level for B.Sc. (Hons.)

Education Biology

Level	Total of Compulsory Courses	Total of Elective Course
100	30	10
200	28	13
300	19	11
400	24	13
500	16	12
	117	59

**** GST 102, GST 103, GST 105, FED 121**

Remark:

Direct Entry students must take all the General Studies Courses (GST)
To graduate, a student must pass a minimum of:

I 128 units for a 5–year degree

Ii 96 units for a student on direct entry

This minimum will include:

I All University requirements: GST 102, 103, 105, 201, 407 (10 units)

II All Faculty Requirements: FSC 111, 112, 113, 114, 115

Iii Departmental Requirements: All Compulsory courses

Iv Electives – ONLY from those listed and approved by the Department

Note: 10 – 12 % of the total units should be elective courses

SYNOPSES OF COURSES (EDUCATION BIOLOGY)

YEAR ONE

GST 102: Philosophy, Logic & Philosophy of Science 2 Units

A brief survey of the scope, notion, branches, and problems of philosophy. Elements of Western and African philosophy. Symbolic logic, special symbols in symbolic logic; conjunction, affirmation, negation, disjunction, equivalence and conditional statements. Laws of thought. Method of reduction using rules of inference and bi-conditionals. Qualification theory.

GST 103: Nigerian Peoples and Culture 2 Units

The course exposes students to the different cultures of the Nigeria people, geographical location, history and tribes.

GST 105: Use of English 2 Units

The course enables students to acquire improved study skills and better communicative skills in the use of English for general and academic purposes at the University level.

FED 121: General Principles of Teaching 2 Units

This course exposes student-teachers with the concepts of profession, principles of teaching professions, and rudiments of teaching and learning. It emphasizes on types of teaching activities for selecting and stating objectives, lesson planning units, modules and daily lesson plan. It further exposes pre-service teachers to all aspects of teaching and class management before embarking on teaching practice. Students are also introduced to the various attributes and characteristics of the teaching profession, while equipping students with the essential qualities and multiple roles of a good and effective teacher.

FSC 111: Introductory Biology 3 Units

History of biology. Characteristics and classification of living things. Reproduction. Interrelationship of organisms. Heredity and evolution.

FSC 112: Introductory Chemistry I 3 Units

Measurement and precision. Hypothesis. Theory and law with appropriate illustration. Nature of matter – the three states of matter. Atomic structure electronic energy levels and orbitals. Periodic classification of elements and its relationship to their eletronic configurations. Mole concept and calculations based on it, including application to titrimetry and balancing of equation by electron transfer method. Types and chemical reactions and stoichiometric calculations. Different methods of expressing concentrations of solution. Chemical kinetics and equilibria and related simple calculations. Important applications of equilibria like Ph. Solubility. Product and solubility of ionic solids. Thermochemistry and simple calculations based on Hess's Law.

Electrochemistry and working of various cells. Brief mention of corrosion. Organic chemistry. Simple reactions of hydrocarbons. Alchohols and acids. Petroleum chemistry. Oils and fats. Hydrogenations of oils. Polymer and biologically important molecules.

FSC 113: Introductory Computer Science 3 Units

Hardware: functional components. Software. System application packages. Program development. Flowcharting. Program objects. Basic programming. Computer application areas and technological trends.

FSC 114: Introductory Mathematics 3 Units

Elementary set theory. Subsets. Union. Intersection. Complements. Venn diagrams. Real numbers. Integer. Rational and irrational numbers (mathematical induction). Real sequences and series. Theory of quadratic equations. Binomial theorem. Trigonometry. Circular measure. Trigonometric functions of angles of any magnitude and trigonometric formulae. Complex numbers. Algebra of complex numbers. The Argand diagram. De Moivre's theorem (nth root of unity). Coordinate geometry. Straight line and elementary treatment of circles.

FSC 115: Introductory Physics I 3 Units

Physical quantities. Standards and units. Kinematics: uniform velocity motion. Uniform acceleration motion. Dynamics: Newton's laws of motion, Newton's universal law of gravitation. Work, energy, conservation laws. Concept of mechanical equilibrium. Centre of mass and centre of gravity. Moment of a force. Rotational motion. Angualar momentum and torque. Total mechanical energy. Elasticity. Hooke's law. Young's shear and bulk modulus hydrostatics. Pressure. Buoyancy. Archimedes' principle. Elements of hydrodynamics. Molecular properties of fluids. Viscosity. Surface tension. Adhesion. Cohesion. Capillarity. Drops and bubbles. Temperature and Zeroth law of thermodynamics. Quality of heat. Heat Transfer. Gas laws. First and second laws of thermodynamics. Application to kinetic theory of gases.

BTN 121: General Botany 3 Units

General characteristics, similarities, differences and economic importance of viruses, bacteria, fungi, lower green and vascular plants. Ecological importance of various plant forms. Introduction to **ethno botany** or traditional medicine.

CHM 121: Introductory Chemistry II 4 units

Chemical bonding, ionic, covalent, coordinate, metallic, hydrogen bonding and van der Waals forces. Bond energy and bond angle. Shapes of simple covalent molecules. Gaseous state. Ideal and non-ideal behaviour. Solution: types of solution, solubility and vapour pressure.

CHM 122: Experimental Chemistry I **2 Units**

Inorganic practicals: Two main sections, namely- Qualitative and Quantitative. Qualitative inorganic practicals which consist of identification of ions (anions and cations) in solution. Quantitative inorganic practicals which are only by volumetric analysis and includes acid-base, redox and precipitation titrations.

Organic practicals which involve reactions of simple functional groups, simple preparations, recrystallization and determination of m.pt of organic compounds.

ZLY 111: Introductory Zoology I **2 Units**

The microscope. Parts of the instrument and procedure for proper use. Classification and characteristics of animal from phyla protozoa, coelenterate, platyhelminthes, nematode and annelida to arthropoda. General morphology of a typical animal in each phylum. Life histories of some parasites. Structure and functions of animal tissues.

ZLY 121: Introductory Zoology II **2 Units**

Classification and characteristics of animals from phylum mollusca, echinodermata, protochordata to chordata (vertebrata).General morphology. Structure and functions of animal tissues. Introduction to animal physiology.

YEAR TWO

GST 201: General African Studies **2 Units**

The course exposes students to the different cultures of the African people, geographical location, history and tribes.

FED 212: Foundations of Education **2 Units**

A study of educational developments and institutions from ancient time to the present with particular reference to Modern education in Nigeria major Sociological, Comparative and philosophical ideas should be taught. The relationship between school and society must be emphasized.

FED 213: Introduction to Educational Psychology **2 Units**

Theories and conditions of learning and teaching with emphasis on individual differences; motivation, retention, transfer of learning, learning environments etc; the role of heredity and environment in growth and development, cognitive development; social development; problems of adolescents; child abuse.

FED 222: Elements of Special Education **2 Units**

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

STE 221: Teaching Integrated Science at Basic 7-9 2 Units
Historical development of integrated science. Principles, objectives, techniques and thematic approach in integrated science. Instructional facilities. Improvisation. Laboratory safety and precaution.

CBG 211: Introductory Cell Biology 3 Units
Modern concepts relating to the cell, structure and function of organelles, membranes and cell walls: Basic molecules of the cell.

BTN 211: Variety of Plants I 3 Units
Classification, range of form and organization. Life histories and representative members of viruses, bacteria, fungi, algae, bryophytes and pteridophytes. Germination, growth and performance of halophytes.

BTN 222 Introductory Ecology 3 Units
Introduction and definition: lithosphere and hydrosphere. Ecosystem: biotic and biotic components, concepts of limiting factors. Energy flow in ecosystems: Food chain and food webs. Tropic level and ecological pyramids. Biogeochemical cycling. Productivity population characteristics. Structure of communities, species composition, diversity and stability. Habitat and niche, ecological equivalents. Community interactions. Succession, Major biomes. Environment – organisms coupling: Operational environment, Distribution patterns and adaptation to different environments.

MIC 211 Introductory Microbiology 3 Units
History and scope of Microbiology. Instrumentation in Microbiology. Structure, Ecology and Reproduction of representative genera, isolation and cultivation of bacteria, fungi and viruses. Biochemical activities of microorganisms. Immunological properties of microrganisms. Economic importance of microorganisms especially in medicine, agriculture, food, environment and biotechnology.

CHM 213: Basic Organic Chemistry I 2 Units
Pre-requisite: FSC 112 OR CHM 111
Application of the concepts of atomic and molecular orbital of the alkanes, alkenes, alkynes.

ZLY 211: General Zoology **3 Units**

Characteristics of subclass, order and diversities of animals from phyla Protozoa, Porifera, Coelenterates, Phythyhelminthes, Nematoda, Annelida, Arthropoda, Mollusca, Echnidermata, Protochordata to Vertebrata. Biology and life histories of some representative members.

ZLY 221: Animal Structure and Function **3 Units**

Comparative study of animals based on relationships between structure and function in all phyla/groups pertaining to nutrition, respiration, excretion and irritability. Recognition. Attack and defence including adaptations and interactions in ecosystems.

ZLY 222: Man and the Environment **2 Units**

Anthropogenic activities and impacts on local and global ecosystems.

ZLY 227: Animal Ecology **2 Units**

The environment, ecological factors, ecological methods, marine estuarine, freshwater and land animal communities, interrelationships of animals.

CBG 222: Introductory Developmental Biology **2 Units**

Reproduction; cell division; differentiation and growth of cells

YEAR THREE

FED 311: Basic Principles of Curriculum Development and Instruction 2 Units

The course presents basic concepts and principles of curriculum, curriculum development, instruction, and the relationship between curriculum and curriculum instruction. It further exposes the students to the various selected theories and models of curriculum development, basic principles of content selection and objective formulations, applications to school subjects with particular reference to the National Policy on Education and other ways of pursuing curriculum improvements in the schools.

FED 321 Research Methods and Statistics **2 Units**

The purpose of this course is to develop in the student the requisite skills for conducting and reporting research in Education. Topics discussed include overview of research process. General framework for developing research. Types of research design. Literature review. Populations. Samples. Research instruments.

At the end of the courses the students will be required to write a proposal, preparing and starting them with writing their project.

FED 313: Measurement and Evaluation 2 Units

Evaluation in the teaching process. Different techniques of evaluation: objective, essay, oral, performance and non-testing devices. Experience in test construction, administration, scoring, analysis and interpretation.

FED 314: Introduction to Educational Technology and ICT 2 Units

The concept, application and psychological foundations of Educational technology. Educational media. Teaching methods and techniques. Community resources for teaching and learning processes. Systems approach to instruction. Programmed instruction. Computer in Education and practicals.

FED 315: Teaching Practice I 3 Units

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

BTN 321: Variety of Plants II 3 Units

Morphology, ecology, life histories and embryology of some gymnosperms and angiosperms.

BTN 311: Plant Physiology I (Respiration and Nutrient Procurement) 3 Units

Fundamentals of plant physiology with special reference to the physical and chemical properties of cells. Plant water relations. Physiology of stomata. Mineral nutrition. Photosynthesis. Glycolysis and respiration. Chemistry of metabolic inhibitors.

CBG 311: General Ecology 3 Units

The ecosystem approach to the study of ecology. Energy flow and nutrient cycling, dynamics of populations and communities in the ecosystem; influence of man.

CBG 312: Genetics I 4 units

Principles governing the transmission of hereditary factors from parents to offspring and in populations. Multiple alleles. Gene action and expression. Sex determination. Chemical nature of the gene.

MIC 311: General Microbiology 3 Units

Pre-requisite: MIC 101

Classification of micro-organisms. Biological and bio-chemical pathways of micro-organisms. Cycles of elements in nature. Nitrogen fixation.

BTN 312: Flowering Plants Systematics 3 Units

Principle of taxonomy. Units of classification. Taxonomic hierarchy. Methods used in assessing relationships. Delimitation of **taxa** and attribution of rank. Concept of characters.

CBG 324: Evolution I **3 Units**

Theories, evidences and mechanisms of organic evolution.

ZLY 317: Animal Biodiversity **3 Units**

Introduction to conventions on biological diversity; fundamentals of biodiversity and conservation. Implementation of the convention on biological diversity in Nigeria (status). Practical field monitoring and assessments in ecosystems/industries/homes.

YEAR FOUR

GST 407: Entrepreneurship and Corporate Governance **2 Units**

Principle and concept of corporate and Entrepreneurship.

FED 414: Teaching Practice II **3 Units**

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

STE 423: Teaching Biology at SSS **2 Units**

Introduction, aim and objectives. Pre-requisites to effective teaching of biology concepts at SS level. Traditional approaches relevant to the teaching of biology (science) at the secondary school level. Innovative approaches relevant to biology teaching. Tools and mechanisms for biology teaching improvisation in biology class. Constructivist strategies for teaching and learning of biology concepts. Laboratory techniques for safety and management in the secondary school biology laboratory. Effective teaching of concepts in the core curriculum in biology. Practical work. Methods of evaluation. Projects.

BTN 413: Mycology I **3 Units**

Morphology, classification and economic importance of fungi.

BTN 421: Plant Physiology II (Growth Regulation and Enzymes) **3 Units**

Prerequisite: BTN 311

Growth and movements. Growth regulation. Enzymes reactions. Physiological aspects of crop yield.

BTN 423: Plant Anatomy 3 Units

The organization of the plant body. The plant cell. Cell organelles and their functions. Meristem and cell differentiation. Cell types; matures and tissue systems. The cambium and its derivatives. Anatomy of monocotyledonous and dicotyledonous stems. Roots and leaves. Periderm-formation, structure and functions.

CBG 426: Biological Techniques 2 Units

Microscopy; preparation of microscope slides; Microtomy; photometry; colorimetry, chromatography, cytochemical techniques; conductometry.

ZLY 413: General Entomology 3 Units

Principles of taxonomy. General study of insect anatomy. Physiology, embryology and phylogeny. Behaviour and associations.

ZLY 421: Comparative Animal Physiology 3 Units

A general study of tissue nutrition. Osmoregulation and excretion. Membranes. Transport. Homeostasis and coordination in animals.

ZLY 431: Environmental Assessment 2 Units

Practicalities of biomonitoring; Environmental Impact Assessment (EIA) including EER/post impact assessment etc. concept, philosophy, methods with particular reference to role of biologists and usefulness in environmental protection and management. EIA field work and practical on environmental assessments (EIA, EER etc) covering identification of organisms, population measurement, identification and significance of numerical and frequency dominance etc in ecosystem description, impact identification, analysis and mitigations

STA 414: Statistics for Biologists 3 Units

Introduction to probability; Binomial, Poisson and normal distribution. Test of significance based on the normal distribution. Goodness of fit tests. Regression and correlation. Some basic sampling techniques.

ABT 423: Introduction to Horticulture 2 Units

Climate and season, compost, classification of horticultural planet, growth and maturing plants, tools and equipment. Cultivation and propagation, disease and pest. Understanding the landscape, rock gardens.

YEAR FIVE

FED 513: Introduction to Educational Management 2 Units

Some Concepts and Definitions. History of Educational Management in Nigeria General Principles of Educational Administration. Concepts of Organization(s) Organizational Structure and Management of Education in Nigeria. Financing Education in Nigeria. School Records. School Supervision School Inspection. Leadership in Education. Some Management Techniques in Education Theories of Educational Management. Discipline in Schools (Staff and Students).
Conflict Management in Schools. Case Studies in Educational Management School Mapping, Plant Planning & Facilities Management. Human Relationship in Educational Management.

FED 521: Research Project 3 Units
Educational research. Choosing a research topic. Review of relevant literature. Research design and methodology. Treatment and analysis of data. Findings and recommendations. The abstract. References/bibliography.

FED 523: Guidance &Counselling for Teacher 2 Units
Explanation of the meaning, history and objectives. Basic principles and techniques of guidance and counselling. Interaction with learners. Need for guidance and counselling. Educational, vocational and personal-social guidance and counselling. Individual and group guidance and counselling. Characteristics of a professional counsellor. Guidance services in schools. Other school personnel and the guidance programmes.

STE 523: Curriculum Development in Biology 2 Units
History of science teaching in Nigeria with special interest in the development of curriculum in biology. Philosophical issues in curriculum development and major landmarks leading to the teaching of biology in Nigeria. Curriculum development agencies in Nigeria and their contributions to developing a curriculum in Nigeria. Curriculum development efforts since Sputnik 1957.National policies in Education (NPEs) in Nigeria. Biology curriculum development efforts in Nigeria. Contemporary curriculum development issues in science Education. Development of biology curriculum for the 21st century. Analysis of NSSSBC *viz-a-viz* curriculum for the 21st century.

BTN 513: Economic Botany 3 Units
Botany and cultivation of plant species with particular reference to Nigerian economic plants.

CBG 506: Population Ecology 2 Units
Consideration of growth and regulation of population. Interrelationships of biotic and environmental factors that control population responses and interaction.

BTN 515: Plant Physiology III **3 Units**

Pre-requisite: BTN 311 & BTN 421

Transport phenomena in plants. Physiology of seasonal development. Seed germination. Flowering and flowering hormones. Dormancy. Senescence. Endogenous rhythms. Implications in plant technology.

ABT 521: Plant and Environmental Pollution Monitoring. **2 Units**

The use of algae, lichens, bryophytes and higher plants in monitoring air pollution. The use of algae as indicators of acquatic pollution. Effect of pollution on plant distributors. The merits and demerits of using various taxonomic groups as indicators.

BTN 514: Mycology II **2 Units**

Pre-requisite BTN 413

Culture media and cultural techniques in Mycology; Constituents of fungal cell; Structure and function of hyphae; Membrane and membrane-bound organelles. Fungal saprophytion. Fungal parasitism. Spores and their dispersal. Predatory fungi and coprophilous fungi. Fungi in extreme environment.

ZLY 526: Applied Entomology **3 Units**

Principles of Applied Entomology. An introductory study of the ecology of pests including how insects damage plants, pest concept and dynamic status. Non target fauna associated with pests in agro-ecosystems. Elementary pesticide science and introduction to pest control and management including IPM.

B.Sc. EDUCATION CHEMISTRY

YEAR ONE NEW CURRICULUM

Course Code	Course Title	Status	Units
GST 102	Philosophy, Logic & Philosophy of Science	C	2
GST 103	Nigerian Peoples and Cultures	C	2
GST 105	Use of English	C	2
FSC 111	Introductory Biology	C	3
FSC 112	Introduction to Chemistry	C	3
FSC 113	Introductory Computer Science	C	3
FSC 114	Introductory Mathematics	C	3
FSC 115	Introductory Physics I	C	3

FED 121	General Principles of Teaching	C	2
MAT 121	Algebra and Co-ordinate Geometry	C	3
MAT 122	Calculus	C	3
CHM 121	Introductory Chemistry II	C	3
CHM 122	Experimental Chemistry I	C	2
Elective Course(s) (Minimum of 3 Units)			**3**
PHS 122	Introduction Physics III	E*	3 `
CSC 120	Computer as a problem-solving tool	E	3
Total Units of Compulsory Courses			**34**
Total Units of Elective Courses			**3**

YEAR ONE OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	FED 100	Introduction to the teaching Profession	2C	176
2.	GST 105	Use of English	2R	185
3.	GST 102	Philosophy and Logic	2R	187
4.	FSC 101	Introductory Biology	3C	168
5.	FSC 102	Introductory Chemistry	3C	169
6.	FSC 103	Introductory Computer Science	2C	170
7.	FSC 104	Introductory Mathematics	3C	171
8.	FSC 105	Introductory Physics	3C	172
9.	CHM 101	Introductory Chemistry I	4C	174
10.	CHM 102	Practical Chemistry	2C	175
11.	MAT 101	Algebra, Coordinate Geometry	3E	175
12.	MAT 102	Calculus	3E	179
13.	MAT 103	Elements of Statistics	3E	180

YEAR TWO NEW CURRICULUM

Course Code	Course Title	Status	Units
GST 201	General African Studies I	C	2
FED 212	Foundations of Education	C	2
FED 213	Introduction to Educational Psychology	C	2
CHM 211	Basic Inorganic Chemistry I	C	2
CHM 212	Basic Physical Chemistry I	C	2
CHM 213	Basic Organic Chemistry	C	3
CHM 214	Experimental Chemistry II	C	2
MAT 237	Mathematics for Non- Majors I	C	2
STE 222	Teaching Integrated Science at Basic 7- 9	C	2
CHM 223	Experimental Chemistry III	C	2
FED 242	Elements of Special Education	C	2
Elective Course(s) (Minimum units 0)			0
PHS 214	Modern Physics I	E*	2
ZLY 222	Man and Environment	E*	2
STA 212	Introduction to Statistical Packages	E	3
STA 222	Statistical Methods	E	2
Total Units of Compulsory Courses			**23**
Total Units of Elective Courses			**4**

YEAR TWO OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	GAS 201	General African Studies II	2R	186
2.	EDA 201	History & Dev. Of Edu. In west Africa	2C	191
3.	EDF 211	Introduction to Philosophy of Education	1C	209
4.	EDF 220	Human Learning	1C	209
5.	STE 201	General Principle of Teaching	2C	206

6.	HKE 251	PERSONAL Health and Physical Fitness	2E	216
	OR			
	ADE 201	Foundation of Adult Education	2E	188
7.	CHM 203	Basic Organic Chemistry	4C	203
8.	CHM 202	Basic Physical Chemistry	4C	204
9.	CHM 201	Basic Inorganic Chemistry	4C	189
10.	CHM 204	Experimental Chemistry II	2C	190
11.	CHM 205	Experimental Chemistry III	2C	205
12.	MAT 213	Pure Mathematics I	2E	197
			33	

YEAR THREE NEW CURRICULUM

Course Code	**Course Title**	**Status**	**Units**
CHM 221	Basic Inorganic Chemistry II	C	2
CHM 222	Basic Physical Chemistry II	C	2
FED 311	Basic Principles of Curriculum Development and Instruction	C	2
FED 313	Measurement and Evaluation	C	2
FED 314	Introduction to Educational Technology & ICT	C	2
FED 321	Research Methods and statistics	C	2
CHM 311/ 331	Main Group Elements	C	2
CHM 315	Chemical Thermodynamics	C	2
CHM 322	Organic Reactions	C	3
MAT 247	Mathematics for Non- Majors II	C	2

Elective Course(s) (Minimum of 8 units)			8
CHM 316	Methods of Chemical Analysis	E*	2
CHM 332	Experimental Chemistry IV	E*	2
CHM 318	Heterocyclic Chemistry I	E*	2
CHM 334	Applied Spectroscopy	E*	2
ICH 311	Industrial Chemistry I	E*	2
STA 314	Statistics for Biologists	E	3
Total Units of Compulsory Courses			**21**
Total Units of Elective Courses Available			**10**

YEAR THREE OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	STE 202	Microteaching & Classroom Observation of Behavior	2C	207
2.	GST 202	General African Studies II	2R	202
3.	EDA 202	The Development of Educational Administration in Nigeria (1960 – date)	2C	192
4.	EDF 221	Growth and Development	1C	210
5.	EDF 222	Measurement and Evaluation	2C	194
6.	STE 301	Introduction to Education Technology	2C	224
7.	STE 203	Teaching Biology at JSS	2C	208
8.	MAT 214	Pure Mathematics II	2E	214
9.	CHM 301	Chemistry of Main Group Elements	2C	220
10.	CHM 302	Transition Metal Chemistry	2C	221
11.	CHM 303	Methods of Chemical Analysis	2C	222
12.	CHM 304	Organic Reaction	2C	228

13.	CHM 305	Applied Spectroscopy	2C	456
			28	

YEAR FOUR NEW CURRICULUM

New Course Code	**Course Title**	**Status**	**Course Units**
GST 307	Entrepreneurship and Corporate Governance	C	2
FED 414	Teaching Practice I	C	6
STE 324	Teaching Chemistry at SSS	C	2
STI 322	Integrated Science Practical Chemistry	C	2
CHM 431	Co-ordination Chemistry	C	3
CHM 433	Organic Reaction Mechanism	C	3
CHM 321	Transition metal Chemistry	C	2
CHM 323	Chemical kinetics	C	2
CHM 324	Electrochemistry	C	2
Elective Course(s) (Minimum of 2 Units)			**2**
CHM 436	Analytical chemistry	E*	2
CHM 434	Molecular Spectroscopy	E	3
CHM 432	Organic Synthetic Methods	E	3
ICH 431	Industrial Chemistry II	E	2
ICH 433	Petroleum Refining Processes	E	2
STA 321	Statistical Inference	E	2
PHS 223	Introductory Astrophysics	E	2
Total Units of Compulsory Courses			**24**
Total Units of Elective Courses Available			**2**

YEAR 4

S/NO.	**COURSE CODE**	**COURSE TITLE**	**UNITS STATUS**	**COMPUTER CODE**
1.	EDU 316A	Conducting & Reporting Research in Edu	1C	236

2.	FED 317	Teaching Practice	3C	237
3.	EDA 305	Financing Education in Nigeria	2C	234
4.	ADE 322	Mass Media & Methods of Distance Edu	2E	219
	OR			
	HKE 357	Safety Education	2E	227
5.	STE 312	Teaching Chemistry at SSS	3C	225
6.	CHM 306	Chemical Thermodynamics	2C	229
7.	CHM 307	Chemical Kinetics	2C	230
8.	CHM 308	Electrochemistry	2C	231
9.	CHM 309	Atomic Spectroscopy	2C	704
10.	CHM 310	Heterocyclic Chemistry	2C	705
11.	STE 314	Teaching Science at SSS Level		223

YEAR FIVE NEW CURRICULUM

Course Code	Course Title		Status	Units
FED 413	Introduction to Education Management		C	2
FED 423	Guidance and Counselling for Teachers		C	2
FED 488	Research Project		C	3
STE 442	Curriculum Development in Chemistry		C	2
CHM 437	Practical Chemistry for Education Students		C	2
Elective Course(s) (Minimum Units 2)				**2**
CHM 423	Protein and Carbohydrate Chemistry		E*	2
CHM 429	Environmental Chemistry		E	2
CHM 422	Bioactive Organic Compounds		E	2
CHM 424	Advanced Chemical Kinetics		E	2
CHM 426	Radiochemistry & Diffraction Methods		E	2

CHM 427	Organometallic Chemistry		E	2
Total Units of Compulsory Courses				**11**
Total Units of Elective Courses Available				**2**

YEAR FIVE OLD

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	STE 401	Basic Principle in Curriculum Development	2C	158
2.	EDA 401	The Organization of Primary Education in Nigeria	2C	226
3.	FED 316 B	Conducting and Reporting Research	1C	449
4.	CHM 311	Alicyclic Chemistry and Stereochemistry	2C	143
5.	CHM 312	Industrial Chemistry	2C	459
6.	CHM 313	Experimental Chemistry IV	2C	223
7.	CHM 314	Experimental Chemistry V	2C	162
8.	FED 416	Project	3C	162
9.	FED 417	Teaching Practice II	3	163
10.	GST 307	Entrepreneurship	3R	989
			16	

YEAR SIX OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	UNITS
1.	HKE 421	Contemporary Issues in P.H.E, Recreation and sports	2	E

3.	EDF 417	Continuous Assessment & Guidance Tools	2	C
4.	EDA 402	Emergent Problems in Nigerian Education	2	C
5.	STE 412	Curriculum in Chemistry	2	C
6.	CHM 401	Coordinate Chemistry	3	C
7.	CHM 403	Organic Reactions Mechanism	3	C
8.	CHM 408	Analytical Chemistry	2	C
9.	CHM 411	Protein and Carbohydrate Chemistry	2	C
10.	CHM 417	Experimental Chemistry	2	C
			22	

Summary of number of compulsory and elective courses to be taken/ available at each year for B.Sc. (Hons.) Education Chemistry

Level	Total Units of Compulsory Courses	Total Units of Elective Courses	Total Units Courses
100	34	3	37
200	23	4	23
300	21	10	29
400	24	2	26
500	11	4	13
	115	**23**	**138**

N.B

All Chemistry Education students except DIRECT ENTRY must offer a minimum of 128 units.

Direct Entry (DE) students must offer a minimum of 96 units.

Direct Entry (DE) students to register GST 102, GST 103, GST 105 and (FED 111* is only for DE student without Education background)

Remark:

Direct Entry students must take all the General Studies Courses (GST)

To graduate, a student must pass a minimum of:

I. 128 units for a 5-year degree
II. 96 units for a student on direct entry

SYNOPSES OF COURSES (EDUCATION CHEMISTRY)

YEAR ONE

GST102: PHILOSOPHY, LOGIC & PHILOSOPHY OF SCIENCE 2 Units

A brief survey of the scope, notion, branches and problems of philosophy. Elements of Western and African philosophy. Symbolic logic, special symbols in symbolic logic; conjunction, affirmation, negation, disjunction, equivalence and conditional statements. Laws of thought. Method of deduction using rules of inference and bi-conditionals. Qualification theory.

GST103: NIGERIAN PEOPLES AND CULTURE 2 Units

The course exposes students to the different cultures of the Nigeria people, geographical location, history and tribes.

GST105: USE OF ENGLISH 2 Units

The course enables students to acquire improved study skills and better communicative skills in the use of English for general and academic purposes at the University level.

FSC 111: INTRODUCTORY BIOLOGY 3 Units

History of biology. Characteristics and classification of living things. Reproduction. Interrelationship of organisms. Heredity and evolution.

FSC 112: INTRODUCTORY CHEMISTRY 3 Units

Measurement and precision. Hypothesis. Theory and law with appropriate illustration. Nature of matter – the three states of matter. Atomic structure electronic energy levels and orbitals. Periodic classification of elements and its relationship to their electronic configurations. Mole concept and calculations based on it, including application to titrimetry and balancing of equation by electron transfer method. Types and chemical reactions and stoichiometric calculations. Different methods of expressing concentrations of solution. Chemical kinetics and equilibria and related simple calculations. Important applications of equilibria like PH. Solubility. Product and solubility of ionic solids. Thermochemistry and simple calculations based on Hess's Law. Electrochemistry and working of various cells. Brief mention of corrosion. Organic chemistry. Simple reactions of hydrocarbons. Alcohols and acids. Petroleum chemistry. Oils and fats. Hydrogenations of oils. Polymer and biologically important molecules.

FSC 113: INTRODUCTORY COMPUTER SCIENCE 3 Units

Hardware: functional components. Software. System application packages. Program development. Flowcharting. Program objects. Basic programming. Computer application areas and technological trends.

FSC 114: INTRODUCTORY MATHEMATICS 3 Units

Elementary set theory. Subsets. Union. Intersection. Complements. Venn diagrams. Real numbers. Integer. Rational and irrational numbers (mathematical induction). Real sequences and series. Theory of quadratic equations. Binomial theorem. Trigonometry. Circular measure. Trigonometric functions of angles of any magnitude and trigonometric formulae. Complex numbers. Algebra of complex numbers. The Argand diagram. De Moivre's theorem (nth root of unity). Coordinate geometry. Straight line and elementary treatment of circles.

FSC 115: INTRODUCTORY PHYSICS I 3 Units

Physical quantities. Standards and units. Kinematics: uniform velocity motion. Uniform acceleration motion. Dynamics: Newton's laws of motion, Newton's universal law of gravitation. Work, energy, conservation laws. Concept of mechanical equilibrium. Centre of mass and centre of gravity. Moment of a force. Rotational motion. Angular momentum and torque. Total mechanical energy. Elasticity. Hooke's law. Young's shear and bulk modulus hydrostatics. Pressure. Buoyancy. Archimedes' principle. Elements of hydrodynamics. Molecular properties of fluids. Viscosity. Surface tension. Adhesion. Cohesion. Capillarity. Drops and bubbles. Temperature and Zeroth law of thermodynamics. Quality of heat. Heat Transfer. Gas laws. First and second laws of thermodynamics. Application to kinetic theory of gases.

FED 121: GENERAL PRINCIPLES OF TEACHING 2 Units

This course exposes student-teachers with the concepts of profession, principles of teaching professions, and rudiments of teaching and learning. It emphasizes on types of teaching activities for selecting and stating objectives, lesson planning units, modules and daily lesson plan. It further exposes pre-service teachers to all aspects of teaching and class management before embarking on teaching practice. Students are also introduced to the various attributes and characteristics of the teaching profession, while equipping students with the essential qualities and multiple roles of a good and effective teacher.

MAT 121: ALGEBRA, CO-ORDINATE GEOMETRY 3 Units

Introduction to sets and mapping. Basic algebraic structures, polynomials, determinants and matrices. Solution of algebraic and transcendental equation. Elements of coordinate geometry. The straight line, conic sections: circles, parabola, ellipse, hyperbola, tangents and normals.

MAT 122: CALCULUS 3 Units

Functions of a real variable, graphs, limits and notion of continuity. Differentiation: differentiation of algebraic functions, trigonometric functions, composites function and chain rule, higher order derivatives. Application: rectilinear motion, tangents and normals, maximum and minimum, rate of change and curve sketching. Integration: integration as

inverse of differentiation, definite integral, techniques of integration. Applications: areas, volumes and moment of inertia.

CHM 121: INTRODUCTORY CHEMISTRY II 3 Units

Chemical bonding, ionic, covalent, coordinate, metallic, hydrogen bonding and van der Waals forces. Bond energy and bond angle. Shapes of simple covalent molecules. Gaseous state. Ideal and non-ideal behaviour. Solution: types of solution, solubility and vapour pressure.

CHM 122: EXPERIMENTAL CHEMISTRY I 2 Units

Inorganic practicals: two main sections, namely, qualitative inorganic practicals which consist of identification of ions (anions and cations) in solution and quantitative inorganic practicals which are only by volumetric analysis and includes acid-base, redox and precipitation titrations. Organic practicals which involve reactions of simple functional groups, simple preparations, recrystallization and determination of m.pt of organic compounds.

YEAR TWO

GST 201: GENERAL AFRICAN STUDIES I 2 Units

The course exposes students to the different cultures of the African people, geographical location, history and tribes.

FED 212: FOUNDATIONS OF EDUCATION 2 Units

A study of educational developments and institutions from ancient time to the present with particular reference to Modern education in Nigeria major Sociological, Comparative and philosophical ideas should be taught. The relationship between school and society must be emphasized.

FED 213: INTRODUCTION TO EDUCATIONAL PSYCHOLOGY 2 Units

Theories and conditions of learning and teaching with emphasis on individual differences; motivation, retention, transfer of learning, learning environments etc.; the role of heredity and environment in growth and development, cognitive development; social development; problems of adolescents; child abuse.

CHM 211: BASIC INORGANIC CHEMISTRY 2 Units

Pre-requisite: CHM 121

Origin of the quantum theory. Atomic spectra. The Bohr atom and the extension of Bohr theory. Wave mechanical treatment of atomic structure. Particle-wave duality. The Schrodinger wave equation. Atomic orbitals and multi-electron systems. Electron configurations and periodic classification. Periodic properties. Trend of atomic and ionic radii. Ionization energy. Electron affinity and electronegativity. Chemical bonding: ionic bonding – energetic of ionic bonds. Lattice energy and its application (Born-Haber Cycle).

Covalent bonding. The valence bond theory. Hybridization. Molecular orbital theory. The LCAO method. Homo- and Hetero-nuclear diatomic molecule. Bond length. Metallic bonding-band and zone theory. Intermolecular forces – Van Der Waals, hydrogen bonding. Dipole-dipole interactions. Electrode potential and non-aqueous solvents. Co-ordination compounds (structure of complexes, co-ordination number and geometry). Nomenclature. Isomerism. Simple treatment of crystal field theory (CFT). Splitting of d-orbitals into octahedral, square planar and tetrahedral.

CHM 212: BASIC PHYSICAL CHEMISTRY **2 Units**

Pre-requisite: FSC 112 or CHM 121

velocities and their distribution. Heat capacity of gases and the equipartition of energy. First law of thermodynamics and its applications. Applications of physical properties to chemical constitution: refraction, magnetic rotation, dipole moments, etc. Electrochemistry of solutions. Concentration terms. Molarity. Fractional and steam distillations. Partition law and absorption chromatograph. Colligative properties. Formulation of rate equations for simple systems.

CHM 213: BASIC ORGANIC CHEMISTRY **3 Units**

Pre-requisite: FSC 112 OR CHM 111

Application of the concepts of atomic and molecular orbital of the alkanes, alkenes, alkynes.

CHM 214: EXPERIMENTAL CHEMISTRY II **2 Units**

Physical and Inorganic Practical Chemistry

Experiments in these courses are designed to demonstrate the practical details of the course. Such experiments involve the determination of critical solution temperature of binary systems. Demonstration of partition co-efficient in two immiscible solvents. Determination of relative molar mass from colligative properties. Determination of solubility of sparingly soluble salts from conductance measurements. Conductometric titration. pH measurements. Gravimetric analysis and determination of hardness of water by complexometric titration. Systematic analysis of cations and anions. Demonstration experiments in column chromatography and ion-exchange chromatography.

MAT 217: PURE MATHEMATICS I **2 Units**

Differential Calculus: Differentiation of Algebraic functions, trigonometric functions, composites function and chain rule, higher order derivatives. Integral calculus: Integration as inverse of differentiation, definite integral, techniques of integration. Application: Areas, volumes. Elementary differential equations: First order equations; Separable, homogenous, exact, linear physical application: Exponential function, exponential growth and decay models.

STE 221: TEACHING SCIENCE AT BASIC 7-9 2 Units

Historical development of integrated science. Principles, objectives, techniques and thematic approach in integrated science. Instructional facilities. Improvisation. Laboratory safety and precaution.

CHM 223: EXPERIMENTAL CHEMISTRY III 2 Units

Determination of physical constants. Preparation of esters, aldehydes and ketones. Methods of recrystallization. Qualitative analysis and preparation of crystalline derivatives.

FED 222: ELEMENTS OF SPECIAL EDUCATION 2 Units

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

PHS 122: INTRODUCTORY PHYSICS III 3 Units

Electrostatics, potential and capacitance, dielectrics, production and measurement of static electricity current, Ohm's law, resistance and resistivity, heating, Galvanometers, Voltmeters and Ammeters. D.C, circuits, sources of emf and currents, Kirchhoff's laws, Electrochemistry, The Earth's magnetic fields and induction, Faraday's and Lenz's laws, Force on a current carrying conductor, Biot-Savart Law, Flemming's Right and Left-hand rules, motors and generators.

ZLY 222: MAN, AND THE ENVIRONMENT 2 Units

Anthropogenic Activities and Impacts on Local and Global Ecosystems.

CSC 120: COMPUTER AS A PROBLEM-SOLVING TOOL 3 Units

Classes of problems and Design of Algorithms. Concept of Problem-solving. Effective Problem-solving using current computer environments. Problem-solving strategies. The role of algorithms in the problem-solving process. Implementation strategies for algorithms. Debugging strategies. The concept and properties of algorithms. Tools and techniques using a modern language as a tool.

STA 212: INTRODUCTION TO STATISTICAL PACKAGES 3 Units

Uses of computers in statistical computing, Introduction to package, word, spread sheets, SYSTAT, D-Base, C-stat, MINITAB, SPSS, Use of basic and FORTRAN programmes in solving problems.

PHS 214: MODERN PHYSICS I 2 Units

Pre-requisite: PHS 121

The electron: discovery and properties, Atomic structure, Photoelectric effect, X-ray spectra, Mass spectra, structure of the nucleus, nomenclature, binding energy, stability, Radioactivity: discovery and properties, radioactive series, Accelerators, Detectors.

STA 222: STATISTICAL METHODS & CONCEPTS 2 Units

Vectors and random variables. Sum, product and quotient of random variables. Binomial proportions. Correlation co-efficient. Estimation by confidence interval and tests of hypothesis. Simple and multiple linear regression. Analysis of variance and of covariance (one-way, two-way and Latin square).

YEAR THREE

FED 311: BASIC PRINCIPLES OF CURRICULUM DEVELOPMENT AND INSTRUCTION 2 Units

The course presents basic concepts and principles of curriculum, curriculum development, instruction, and the relationship between curriculum and curriculum instruction. It further exposes the students to the various selected theories and models of curriculum development, basic principles of content selection and objective formulations, applications to school subjects with particular reference to the National Policy on Education and other ways of pursuing curriculum improvements in the schools.

FED 313: MEASUREMENT AND EVALUATION 2 Units

Evaluation in the teaching process. Different techniques of evaluation: objective, essay, oral, performance and non-testing devices. Experience in test construction, administration, scoring, analysis and interpretation.

FED 314: INTRODUCTION TO EDUCATIONAL TECHNOLOGY AND ICT 2 Units

The concept, application and psychological foundations of educational technology. Educational media. Teaching methods and techniques. Community resources for teaching and learning processes. Systems approach to instruction. Programmed instruction. Computer in education and practical.

FED 315: TEACHING PRACTICE I 3 Units

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

CHM 311: CHEMISTRY OF MAIN GROUP ELEMENTS 2 Units

Review of physiochemical principles that govern reactivity of main group elements with emphasis on the noble gases, hydrogen, etc. Electronic structure and general properties and comparative study of group IA and group IIA elements. Chemistry of boron. Carbon

and silicon. Nitrogen and phosphorus. Oxygen and sulphur. The halogens. Separation of metals. Introduction to radiochemistry.

CHM 315: CHEMICAL THERMODYNAMICS 2 Units

PRE-REQUISITE: CHM 212

Concept of entropy. Second law of thermodynamics. Molecular interpretation of entropy. Maximum work function (A) and Gibb's free energy (G). Spontaneity of reactions. Conditions for equilibrium. Chemical potential. Van'tHolf isotherm. Variation of equilibrium. Constant and free energy with temperature. Gibbs-Helmholts equation. Clausius-Clapeyron equation and applications. The third law of thermodynamics. Thermodynamics of solutions. Ideal and non-ideal solutions. Deviation from ideal behaviour. Raoult's law and applications. Determination of molecular mass from molar elevation constant and molar depression constant and from approach based on equilibrium constant considerations. Thermodynamic treatment of solubility of solids with temperature as well as osmotic pressure. Abnormal molecular masses in solution; calculation of degree of dissociation from abnormal molar mass.

CHM 321: TRANSITION METAL CHEMISTRY 2 Units

Detailed treatment of the electronic structure of the transition metals (d-block) and the relationship to their physicochemical properties, chemistry of the elements.

Lanthanides and Actinides: The elements and position of the two series in the periodic table. Comparison of the two series. Electronic configuration and their consequences on oxidation state. Magnetic properties and structure of the elements and their compounds. Recovery and separation of the elements. Uses of the elements.

CHM 322: ORGANIC REACTIONS 3 Units

PRE-REQUISITE: CHM 213

Theoretical principle: breaking and forming of bonds. Factors influencing electron availability – inductive, mesomeric and inductomeric and electromeric effects. Hyper conjugation, steric and stereo effect. Systematic treatment of polyfunctional organic compounds including treatment of their important reactions. Covers non-aromatic hydrocarbon containing two or more multiple bonds (including Diels Ader reactions),. Alkenes and alkynes.Alcohols. Halides and ethers. Unsaturated aldehydes. Ketones. Monocarboxylic acids.Polyhydric alcohols. Polycarbonyl compounds including ethyl acetoacetate. Diethyl malonate. Ketoaldehydes and dicarboxylic acids. Condensed and isolated hydrocarbonds including naphthalene, anthracenes, phenantrhenes and biphenyl. Heterocylclic compounds with ring system containing one heteroatom in one ring, e.g., furan, pyrolethiophene and pyridine

CHM 323: CHEMICAL KINETICS 2 Units

Pre-requisite: CHM 212

Experimental methods for the determination of rates of reactions. Formation of rate equations for simple first, second and third order of reaction. Experimental determination of order and rates of reaction, e.g., spectrophotometric and dilatometric methods. Pseudo unimolecular reactions and catalyzed reactions. Complex reactions. Reversible and opposing reactions. Consecutive and parallel reactions. Effects of temperature on reaction rate (Arrhenius equation and determination of activation energy). Theories of reaction rates. Collision and transition state theories and their simple application to reactions in solution

CHM 324: ELECTROCHEMISTRY 2 Units

Activity and activity co-efficients. Mean ionic activity co-efficients and standard states. Fugacity and ionic strength. Quantitative treatment of modern theory of electrolytes. Debye-Huckel theory (quantitative treatment only).Debye-Huckel limiting law and modification to take care of concentrated solutions. EMF of cells and electrode potential. Reversible and irreversible cells. Standard cells. Cell reactions and EMF. Standard electrode potentials and their applications. Calculation of single electrode potential. Thermodynamics and EMF ΔH and ΔS from EMF data. Standard potentials and equilibrium constant. Classification of electrodes. Chemical and concentration cells with and without transference. The liquid junction potential. Electrolysis and polarization – decomposition potential. Over voltage. Commercial cells.

CHM 313: EXPERIMENTAL CHEMISTRY V 2 Units

Synthesis of polyfunctional organic compounds designed to teach techniques such as crystallization, steam distillation, distillation at reduced pressure, chromatography, etc. Interpretation of spectral data of compounds synthesized. Test of theory of synthesis or reactions of compounds synthesized, separation of mixtures, identification of compounds via derivation.

CHM 314: APPLIED SPECTROSCOPY 2 Units

The course is weighted heavily on application of various spectroscopic techniques to assigning structures to complex molecules mainly of organic nature. The elementary theory surrounding the various types of spectroscopy. The course will lay emphasis on U.V, I.R, H-NMR and mass spectroscopy and a brief mention of C- N.M.R.

CHM 316: METHODS OF CHEMICAL ANALYSIS 2 Units

Theory of errors, statistical treatment of data, theory of sampling. Chemical methods of analysis including volumetric, gravimetric and physicochemical methods (conductimetry),

potentiometry, coulometry, Complexometric titration. Optical methods of analysis including colorimetric and spectroscopic determination.

FED 321: RESEARCH METHODS AND STATISTICS 2 Units

The purpose of this course is to develop in the student the requisite skills for conducting and reporting research in Education. Topics discussed include overview of research process. General framework for developing research. Types of research design. Literature review. Populations. Samples. Research instruments. At the end of the courses the students will be required to write a proposal, preparing and starting them with writing their project.

MAT 225: PURE MATHEMATICS II 2 Units

Functions of several variables: Partial differentiation, function of a function, differentials exact differential, total derivative, change of variables, minima and maxima problems in several variables. Descriptive statistics, frequency distribution, table, mean, mode, median (group and ungroup data) graphic representation of data, bar chart component bar chart,, histogram and pie chart, Ogive, Permutations and combinations, finite sample space, definition of probability finite sample spaces with examples, Basic probability, probability of events, laws of probability, complements of an event, mutually exclusive events, addition law of probability, independent events, conditional probability and use of tree diagrams.

CHM 318: HETEROCYCLIC CHEMISTRY 2 Units

Pre-requisite: CHM 314

The course is designed to illustrate the utility of the basic knowledge of the heterocyclics in everyday life. It will cover non-aromatic heterocyclics: oxazin, oxiran, thiooxiran. Reactivity in heterocyclic compound with one heteroatom in two or more fused rings, quinolones, isoquinolines, benzofuran, benzothiophenes, indoles, benzimidazole. Compounds with two or more heteroatoms in the ring system.

CHM 312: EXPERIMENTAL CHEMISTRY IV 2 Units

In this course, students are exposed to physico-chemical techniques in analytical chemistry. Emphasis is on individual operation of common laboratory instruments for analysis. Experiments are also included to illustrate the empirical laws in physical chemistry

ICH 311: INDUSTRIAL CHEMISTRY I 2 Units

Brief historical survey of industrial Chemistry.

Industrial Economics. Survey of Nigeria's industries and their raw material requirements. Manufacturing processes of various chemicals from agricultural and fossil materials potentials and applications of locally available raw materials as industrial raw materials.

YEAR FOUR

GST 407: ENTREPRENEURSHIP AND CORPORATE GOVERNANCE 2 Units

Principle and concept of corporate Governance and Entrepreneurship.

FED 414: TEACHING PRACTICE II 3 Units

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

STE 422: TEACHING CHEMISTRY AT SSS 2 Units

Chemistry as a discipline. Physical, inorganic and organic concepts in SSS chemistry education. Philosophy of chemistry teaching. The objectives, management of laboratory resources. Appropriate teaching methods and learning theories. Practical skills in chemistry teaching. Practical work using laboratory equipment. Practical work design using WAEC past question papers. Lesson plan and preparation. Difficult concepts: a review of research solution and proposals. Testing and measurement in chemistry teaching, a review.

CHM 411: COORDINATION CHEMISTRY 3 Units

Pre-requisites: CHM 221 & CHM 321

The coordinate bond. Nomenclature and stereochemistry of Werner-type transition metal complexes. Co-ordination numbers. Compounds of co-ordination numbers 1-8 including their stereochemistry and properties. Isomerism in coordination compounds. Bonding theories in co-ordination compounds. Valence bond theory (hybridization of orbitals giving sp^3, d^2sp^2, dsp^3, d^2 sp^3, d^2sp^2). Hybridized structure, Crystal field splitting, Crystal field stabilization energies (CFSE) and their calculations for coordination complexes and molecular orbital theories. Evidences for covalent bonding in complexes. Molecular orbital theory (sigma and pi-systems) including valence bond. Crystal field. Formation of different molecular geometries. Spectroscopic term symbols and their calculations for coordination complexes. Distortion in octahedral complexes due to Jahn Teller effect. Thermodynamic, kinetic and magnetic properties of coordination compounds. Stability of coordination complexes – thermodynamic and kinetic stability. Bioinorganic complexes. Synthesis, substitution and redox reactions of metal complexes.

CHM 413: ORGANIC REACTION MECHANISM 3 Units

Pre-requisite: CHM 322

Structure of benzene and theory of aromaticity. Aromatic electrophilic and nucleophilic substitution mechanisms. Substituents effects. Partial rate factors. Esterification and hydrolysis mechanisms. Elimination reactions, stereospecificity and orientation in E2 elimination and cis-elimination.

CHM 416: ANALYTICAL CHEMISTRY 2 Units

Statistical treatment of data. Sampling techniques. Evaluation of experimental errors. Separation of techniques including ion exchange, zone refining, liquid-liquid extraction, thin layer chromatography and gas liquid chromatography. Electro-analytical methods. Coulometric methods of analysis, Polarography, amperometry, potentiometry, conductometry and refractometry. Quantitative application of UV measurements. Atomic absorption spectroscopy. Principles of thermometric titrimetry.

CHM 414: MOLECULAR SPECTROSCOPY 3 Units

Quantum theory of rotation and vibration. Theory of microwave, infra-red, ultr- violet, visible and Raman spectroscopy. General introduction to electron spin and magnetic resonance spectroscopy. Mossbauer effect, nuclear quadrupole resonance and flame spectroscopy.

CHM 412: ORGANIC SYNTHETIC METHODS 3 Units

The course is designed to show basic principles of organic synthesis. Interconversion of functional groups in complex synthetic schemes. It covers methods of formation of C-C bonds, C-N bonds, oxidation, reduction and organometallic compounds in synthetic chemistry. Synthetic uses of organophosphorus, silicon and boron reagents. Applications of synthetic methods, synthetic micromolecules. Treatment includes a number of examples drawn from current literature.

ICH 411: INDUSTRIAL CHEMISTRY II 2 Units

Development of Industrial chemical processes, differences between laboratory scale and industrial scale chemistry. Conversion, efficiency and yield. Evaluation of reactions: economic and technical considerations. Material accounting in chemical processes; mass and energy balance. Batch and continuous processes, Representation of material flow in chemical processes.

ICH 413: PETROLEUM REFINING PROCESSES 2 Units

Catalytic alkylation, catalytic isomerization, catalytic reforming, catalytic cracking and hydrocracking, lubricating oil production, preliminary assaying of petroleum, specific gravity, distillation, viscosity, Sulphur content, water content, sediment content, pour point and carbon residue.

STA 314: STATISTICS FOR BIOLOGISTS 3 Units

Introduction to probability; Binomial, Poisson and normal distribution. Test of significance based on the normal distribution. Goodness of fit tests. Regression and correlation. Some basic sampling techniques.

ICH 411: INDUSTRIAL CHEMISTRY II 2 Units

Development of industrial chemical processes; difference between laboratory scale and industrial scale chemistry. Conversion, efficiency and yield. Evaluation of reaction: economic and technical considerations. Material accounting in chemical processes: batch and continuous processes, mass and energy balance. Representation of material flow in chemical processes.

ICH 413: PETROLEUM REFINING PROCESSES 2 Units

Catalytic alkylation, catalytic isomerization, catalytic reforming, catalytic cracking and hydrocracking lubricating oil.

YEAR FIVE

FED 513: INTRODUCTION TO EDUCATIONAL MANAGEMENT 2 Units

Some Concepts and Definitions. History of Educational Management in Nigeria General Principles of Educational Administration. Concepts of Organization(s) Organizational Structure and Management of Education in Nigeria. Financing Education in Nigeria. School Records. School Supervision School Inspection. Leadership in Education. Some Management Techniques in Education Theories of Educational Management. Discipline in Schools (Staff and Students).

Conflict Management in Schools. Case Studies in Educational Management School Mapping, Plant Planning & Facilities Management. Human Relationship in Educational Management.

FED 521: RESEARCH PROJECT 3 Units

Educational research. Choosing a research topic. Review of relevant literature. Research design and methodology. Treatment and analysis of data. Findings and recommendations. The abstract. References/bibliography.

FED 523: GUIDANCE & COUNSELLING 2 Units

Explanation of the meaning, history and objectives. Basic principles and techniques of guidance and counselling. Interaction with learners. Need for guidance and counselling. Educational, vocational and personal-social guidance and counselling. Individual and group guidance and counselling. Characteristics of a professional counsellor. Guidance services in schools. Other school personnel and the guidance programmes.

STE 522: CURRICULUM DEVELOPMENT IN CHEMISTRY 2 Units

Concepts of curriculum in chemistry. Developmental process of the national chemistry curriculum. Philosophy and trend of the development of the curriculum. Content selection and analysis of the national chemistry curriculum. Implementation of the national chemistry curriculum. Innovations in curriculum evaluation of the national chemistry curriculum.

CHM 517: SPECIAL PRACTICAL CHEMISTRY FOR EDUCATION STUDENTS 2 Units

a) Physical chemistry – Experiment 1: Titration curves: Weak acid-strong base, Experiment 2: Determination of the dissociation constant of triiodide ion by partition measurements, Experiment 3: Absorption from solutions acetic acid of charcoal, Experiment 4: Determination of the order of reaction.
b) Analytical Experiments- Experiment 1: determination of nickel, Experiment 2: Determination of calcium and magnesium in limestone standardization of edta solution, Experiment 3: Determination of Ascorbic acid, experiment 4: Determination of water hardness.
c) Practical inorganic chemistry – Experiment 1: The preparation of iron (II) oxalate, experiment 2: The preparation of Hexaamine cobalt (III) chloride, Experiment 3: The preparation of potassium manganate, Experiment 4: The preparation of C.S. – Potassium dioxalatodiaquochromate III
d) Organic Practicals- Experiment 1, 2, 3.

CHM 523: PROTEIN AND CARBOHYDRATE CHEMISTRY 2 Units

Broad introduction of proteins and their roles in everyday life. Synthesis and reactions of amino acids and peptides. Structural organization of proteins –primary, secondary, tertiary and quaternary structures. Methods for isolation of proteins, peptides and their uses. Enzymes as biological catalysts. Factors that affect enzyme reactions. Simple treatment of the Michael Menten equation. Classification, structures and nomenclature of carbohydrate. Sugars: general reactions, configuration, epimerization, disaccharides structural determination.

CHM 529: ENVIRONMENTAL CHEMISTRY 2 Units

The environment and society. Concepts of elementary cycles. Air: composition and chemistry of the atmosphere. Air pollution: sources, types, properties, measurement and health hazards. Water sources, types and uses of water. Water chemistry and analysis. Waste water treatment. Composition of domestic wastes. Chemical and physical instrumentation in environmental science. Soil chemistry.

CHM 522: BIOACTIVE ORGANIC COMPOUNDS 2 Units

A study of organic compounds (Natural and synthetic) used for the cure, mitigation or prevention of diseases. Treatment of drug includes structure – activity relationships, metabolism of drugs, isosterism and drug discovery. It also includes drugs such as anti-

malarials, anti-diuretic and directive agents. It covers persistent and non-persistent insecticides, naturally occurring insecticidal agents including pheromone.

CHM 524: ADVANCED CHEMISTRY KINETICS 2 Units

Theories of unimolecular and bimolecular reactions. Chain and photochemical reactions. Reactions in solution. Linear Free Energy relationships, acid-base catalysis, Bronsted catalytic law, primary and secondary mimetric isotope effects. Methods of determining reaction mechanism. Techniques of fast reactions, the relaxation time.

CHM 526: RADIOCHEMISTRY DIFFRACTION METHODS 2 Units

Natural radioactivity, fusion, fission, decay processes, nature of radiation. Nuclear models, energetics of nuclear reaction. Principles and measurement of radioactivity. Applications of radioactivity. Radiation hazards. Discussion of x-ray, neutron and electron diffraction methods in the determination of crystal structure.

CHM 527: ORGANOMETALLIC CHEMISTRY 2 Units

Treatment of the theoretical of the 18-electron rule. Simple metal carbonyls. Metal alkyl, alkene, alkyne and alkylidene complexes. Chemistry of metallocene. Role of organometallic compounds in some catalytic reactions.

B.Sc. EDUCATION MATHEMATICS

YEAR ONE NEW CURRICULUM

Course Code	Course Title	Status	Units
FED 121	General Principles of Teaching	C	2
FSC 111	Introductory Biology	C	3
FSC 112	Introductory Chemistry	C	3
FSC 113	Introductory Computer Science	C	3
FSC 114	Introductory Mathematics	C	3
FSC 115	Introductory Physics	C	3
GST 102	Philosophy, Logic & Philosophy of Science	C	2
GST 103	Nigerian Peoples And Cultures	C	2
GST 105	Use of English	C	2
MAT 121	Algebra & Coordinate Geometry	C	3
MAT 122	Calculus	C	3
MAT 123	Mechanics I	C	3
STA 121	Statistics for Scientists	C	3
	Units of Elective Available (minimum of 2 units)		
PHS 121	Introductory Physics I	E	3

PHS 123	Introductory Practical Physics	E	2
CSC 120	Computer as a Problem-Solving Tool	E	3
Total Units of Compulsory Courses			**35**
Total Units of Elective Courses Available			**0**

YEAR ONE OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	FED 100	Introduction to the teaching Profession	2C	260
2.	GST 105	Use of English	2R	252
3.	GST 102	Philosophy and Logic	2R	272
4.	FSC 103	Introduction to Computer Science	2C	256
5.	FSC 104	Introductory Mathematics	3C	257
6.	FSC 105	Introductory Physics	3C	258
7.	MAT 101	Algebra, Coordinate Geometry	2C	261
8.	MAT 102	Calculus	2C	262
9.	MAT 103	Elements of Statistics	2C	263
10.	MAT 104	Elements of Dynamics	2C	264
11.	FSC 101	Introduction to Biology	3C	254
12.	FSC 102	Introductory Chemistry	3C	255
13.	PHS 101	Introductory Physics II	3E	267
14.	PHS 102	Introductory Physics III	3E	268
15.	PHS 103	Physics Practical's	1C	269
			25	

YEAR TWO NEW CURRICULUM

Course Code	Course Title	Status	Units
GST 201	General African Studies I	C	2
FED 212	Foundation of Education	C	2
FED 213	Introduction to Educational Psychology	C	2
FED 242/222	Elements of Special Education	C	2
STE 223/221	Teaching Mathematics at Basic 7 -9	C	2
MAT 231/211	Real Analysis I	C	3
MAT 232	Abstract Algebra I	C	3
MAT 233	Mathematical Methods I	C	3
MAT 222	Linear Algebra I	C	2
STA 211	Probability Theory I	C	3
STA 222	Statistical Methods	C	2
	Units of Elective Available (minimum of 8 units)		
MAT 234	Mechanics II	E	3
MAT 215	History of Mathematics	E	2
MAT 216	Numerical Analysis I	E	3
Total Units of Compulsory Courses			**26**
Total Units of Elective Courses Allowed			**8**

YEAR TWO OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	GAS 201	General African Studies I	2R	271
2.	EDA 201	History & Dev. Of Edu. In west Africa	2C	274
3.	EDF 211	Introduction to Philosophy of Education	1C	290
4.	EDF 220	Human Learning	1C	267
5.	STE 201	General Principle of Teaching	2C	287
6.	HKE 251	PERSONAL Health and	2E	276

		Physical Fitness		
	OR			
	ADE 201	Foundation of Adult Education	2E	273
7.	MAT 201	Real Analysis	3C	279
8.	MAT 203	Algebra I	3C	280
9.	MAT 205	Geometry I	2E	297
10.	MAT 206	Differential Equation	2E	281
11.	MAT 211	Sampling Distribution	2E	281
12.	CSC 201	FUNDAMENTAL OF Comp. Science & Principle of computer Organization.	3E	284
13.	CSC 202	Introduction to High Level Programming	2E	268
14.	MAT 209	Mechanics III	3C	296
			32	

YEAR THREE NEW CURRICULUM

Course Code	**Course Title**	**Status**	**Units**
FED 311	Basic Principles of Curriculum and Instruction	C	2
FED 313	Measurement & Evaluation	C	2
FED 314	Introduction to Educational Technology &ICT	C	2
FED 321	Research Methods and Statistics	C	2
MAT 331	Complex Analysis I	C	3
MAT 341/321	Linear Algebra II	C	3
MAT 221	Real Analysis II	C	2
MAT 223	Mathematical Methods II	C	3
STE	Teaching Mathematics at SSS	C	2

332/312			
	Units of Elective Available (minimum of 9 units)		
CSC 227	Introduction to Information Processing	E	3
MAT 333	Abstract Algebra II	E	3
MAT 334	Numerical Analysis II	E	3
MAT 224	Mechanics III	E	3
MAT 323	Vectors and Tensors	E	3
STA 321	Statistical Inference	E	3
STA 322	Regression Analysis	E	3
	Total Units of Compulsory Courses		**21**
Total Units of Elective Courses Available			**9**

YEAR 3 OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	STE 202	Microteaching & Classroom Observation of Behavior	1C	288
2.	GST 202	General African Studies II	2R	286
3.	EDA 202	The Development of Educational Administration in Nigeria (1960 – date)	2C	275
4.	EDF 221	Growth and Development	1C	291
5.	EDF 222	Measurement and Evaluation	2C	277
6.	STE 301	Introduction to Educational Technology	2C	300
7.	STE 206	Teaching Mathematics at JSS	3C	289
8.	MAT 210	Probability Theory	2C	283
9.	MAT 207	Mathematical Methods	3E	297
10.	MAT 202	Real Analysis	2C	293

11.	MAT 204	Algebra II	2C	294
12.	MAT 308	Mechanics II	2C	282
13.	MAT 312	Regression Analysis	2C	
			27	

YEAR FOUR NEW CURRICULUM

Course Code	**Course Title**	**Status**	**Units**
FED 414	Teaching Practice	C	6
GST 307	Entrepreneurship and Corporate Governance	C	2
MAT 433	Functional Analysis I	C	3
MAT 413	General Topology I	C	3
MAT 322	Mathematical Method III	C	3
STA 323	Operations Research I	C	3
STE 344	Teaching Further Mathematics at SSS	C	2
	Units of Electives Available (minimum of 6 units)		
MAT 332	Real Analysis III	E	2
MAT 415	Fluid Mechanics I	E	3
MAT 412	Abstract Algebra III	E	3
STA 421	Sample Surveys	E	2
STA 324	Probability Theory II*/	E	2
Total Units Of Compulsory Courses			**22**
Total Units Of Elective Courses Available			**6**

YEAR FOUR OLD CURRICULUM

S/NO.	**COURSE CODE**	**COURSE TITLE**	**UNITS STATUS**	**COMPUTER CODE**
1.	FED 316A	Conducting & Reporting Research in Edu	1C	313

2.	FED 317	Teaching Practice I	3C	314
3.	EDA 305	Financing Education in Nigeria	2C	312
4.	ADE 322	Mass Media & Methods of Distance Edu	2E	306
	OR			
	HKE 357	Safety Education	2E	309
5.	STE 322	Teaching Mathematics at SSS	3C	301
6.	MAT 301	Complex Analysis I	3C	303
7.	MAT 305	Differential Equation II	3C	315
8.	MAT 303	Algebra III	2E	307
9.	MAT 302A	Real Analysis III	3E	308
10.	MAT 307	Classical Mechanics II	3C	319
11.	MAT 319	Real Analysis IV	3C	308
12.	STE 323	Teaching Further Mathematics at SSS		929
			28	

YEAR FIVE NEW CURRICULUM

Course Code	**Course Title**	**Status**	**Units**
FED 413	Introduction to Educational Management	C	2
FED 488	Research Project	C	3
FED 423	Guidance and Counselling for Teachers	C	2
MAT 414	Differential Equation I	C	3
STE 445	Curriculum Development in Mathematics Education	C	2
	Units of Electives Available (minimum of 6 units)		
MAT 441	Lebesgue Measure and Integration	E	3
MAT 442	Complex Analysis II	E	3
MAT 445	Fluid Mechanics II	E	3
MAT 461	Functional Analysis II	E	3
MAT 462	General Topology II	E	3
STA 423	Special Topics in Statistics	E	3
STA 424	Operations Research II	E	2
	Total Units Of Compulsory Courses		**12**

Total Units Of Elective Courses Available	5

YEAR FIVE OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	STE 401	Basic Principle in Curriculum Development	2C	239
2.	EDA 401	The Organization of Primary Education in Nigeria	2C	302
3.	FED 316B	Conducting and Report Research (Seminar)	1C	313
4.	MAT 304	Linear Algebra IV	2E	318
5.	MAT 401	Functional Analysis	3C	246
6.	MAT 306	Vector and Tensor Analysis	3C	315
7.	MAT 310	Fluids Mechanics II & Computational Mathematics.	2E	320
8.	MAT 314	Statistical Concepts	2E	321
9.	MAT 316	Geometry I	2C	316
10.	MAT 407	Numbers Theory	3C	
11.	EDU 416	Project	3C	243
12.	STE 323	Teaching Further Mathematics at SSS	3C	310
13.	FED 417	Teaching Practice II	3C	163
14.	MAT 310	Fluids Mechanics II & Computational Mathematics	3C	
15.	GST 307	Entrepreneurship	3C	091
			28	

YEAR SIX OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	STATUS	UNITS
1.	HKE 421	Contemporary Issues in Physical (or ADE 432) Health	2	E

		Education, Recreation and sports		
3.	EDF 417	Continuous Assessment & Guidance Tools	2	C
4.	EDA 402	Emergent Problems in Nigerian Education	2	C
5.	STE 422	Curriculum in Mathematics	3	C
6.	MAT 403	Algebra V	3	C
7.	MAT 404	General Topology I	3	C
8.	MAT 408	Differential Equation III	3	C
9.	MAT 418	Experimental Design	3	C
10.	MAT 420	Sample Analysis	3	C
11.	ADE 432	Rural Education (or HKE 421)	2	E
			26	

Summary of number of units' compulsory and elective courses to be taken at each Level for B.Sc. Ed. (Hons.) Mathematics

Level	Total of compulsory courses	Total of elective courses
100	35	0
200	26	8
300	21	9
400	22	6
500	12	5
	116	28

Remark:
Direct Entry students must take all General Studies Courses (GST)

To graduate, a student must pass a minimum of:

I. 128 units for a 5-year degree
II. 96 units for a student on direct entry
III. All direct entry students must offer and pass GST 102, GST 103, GST 105, FED 121 (FED 121 is only for students without Education background)

This minimum will include:

I. All University requirements: GST 102, 103, 201, 407 (10 units)
II. All faculty requirements: FSC 111, 112, 113, 114, 115
III. Departmental Requirements: All Compulsory courses
IV. Electives-ONLY from those listed and approved by the Department

Note: 10-12% of the total units should be elective courses

SYNOPSES OF COURSES (EDUCATION MATHEMATICS)

YEAR ONE

GST102: PHILOSOPHY AND LOGIC **2 Units**

A brief survey of the scope, notion, branches and problems of philosophy. Elements of Western and African Philosophy Symbolic logic, special symbols in symbolic logic; conjunction, affirmation, negation, disjunction, equivalence and conditional statements. Laws of thought. Method of deduction using rules of inference and bi-conditionals. Qualification theory.

GST103: NIGERIAN PEOPLES AND CULTURES **2 Units**

The course exposes students to the different cultures of the Nigeria people, geographical location, history and tribes.

GST105: USE OF ENGLISH **2 Units**

The course enables students to acquire improved study skills and better communicative skills in the use of English for general and academic purposes at the University level.

FED121: GENERAL PRINCIPLES OF TEACHING **2 Units**

This course exposes student-teachers with the concepts of profession, principles of teaching professions, and rudiments of teaching and learning. It emphasizes on types of teaching activities for selecting and stating objectives, lesson planning units, modules and daily lesson plan. It further exposes pre-service teachers to all aspects of teaching and class management before embarking on teaching practice. Students are also introduced to the various attributes and characteristics of the teaching profession, while equipping students with the essential qualities and multiple roles of a good and effective teacher.

FSC111: INTRODUCTORY BIOLOGY **3 Units**

History of biology. Characteristics and classification of living things. Reproduction. Interrelationship of organisms. Heredity and evolution.

FSC112: INTRODUCTORY CHEMISTRY **3 Units**

Measurement and precision. Hypothesis. Theory and law with appropriate illustration. Nature of matter – the three states of matter. Atomic structure electronic energy levels and orbitals. Periodic classification of elements and its relationship to their eletronic configurations. Mole concept and calculations based on it, including application to titrimetry and balancing of equation by electron transfer method. Types and chemical reactions and stoichiometric calculations. Different methods of expressing concentrations of solution. Chemical kinetics and equilibria and related simple

calculations. Important applications of equilibria like Ph. Solubility. Product and solubility of ionic solids. Thermochemistry and simple calculations based on Hess's Law. Electrochemistry and working of various cells. Brief mention of corrosion. Organic chemistry. Simple reactions of hydrocarbons. Alchohols and acids. Petroleum chemistry. Oils and fats. Hydrogenations of oils. Polymer and biologically important molecules.

FSC113: INTRODUCTORY COMPUTER SCIENCE 3 Units

Hardware: functional components. Software. System application packages. Program development. Flowcharting. Program objects. Basic programming. Computer application areas and technological trends.

FSC114: INTRODUCTORY MATHEMATICS 3 Units

Elementary set theory. Subsets. Union. Intersection. Complements. Venn diagrams. Real numbers. Integer. Rational and irrational numbers (mathematical induction). Real sequences and series. Theory of quadratic equations. Binomial theorem. Trigonometry. Circular measure. Trigonometric functions of angles of any magnitude and trigonometric formulae. Complex numbers. Algebra of complex numbers. The Argand diagram. De Moivre's theorem (nth root of unity). Coordinate geometry. Straight line and elementary treatment of circles.

FSC115: INTRODUCTORY PHYSICS 3 Units

Physical quantities. Standards and units. Kinematics: uniform velocity motion. Uniform acceleration motion. Dynamics: Newton's laws of motion, Newton's universal law of gravitation. Work, energy, conservation laws. Concept of mechanical equilibrium. Centre of mass and centre of gravity. Moment of a force. Rotational motion. Angualar momentum and torque. Total mechanical energy. Elasticity. Hooke's law. Young's shear and bulk modulus hydrostatics. Pressure. Buoyancy. Archimedes' principle. Elements of hydrodynamics. Molecular properties of fluids. Viscosity. Surface tension. Adhesion. Cohesion. Capillarity. Drops and bubbles. Temperature and Zeroth law of thermodynamics. Quality of heat. Heat Transfer. Gas laws. First and second laws of thermodynamics. Application to kinetic theory of gases.

MAT121: ALGEBRA, CO-ORDINATE GEOMETRY 3 Units

Introduction to sets and mapping. Basic algebraic structures, polynomials, determinants and matrices. Solution of algebraic and transcendental equation. Elements of coordinate geometry. The straight line, conic sections: circles, parabola, ellipse, hyperbola, tangents and normal.

MAT122: CALCULUS **3 Units**

Functions of a real variable, graphs, limits and notion of continuity. Differentiation: differentiation of algebraic functions, trigonometric functions, composites function and chain rule, higher order derivatives. Application: rectilinear motion, tangents and normals, maximum and minimum, rate of change and curve sketching. Integration: integration as inverse of differentiation, definite integral, techniques of integration. Applications: areas, volumes and moment of inertia.

MAT123: MECHANICS I **3 Units**

Vectors: vector addition, subtraction, scalar multiplication, linear dependence. Geometric representation of vectors in 1 – 3 dimensions, rectangular components, direction cosines. Scalar and vector product of two vectors. Triple scalar and vector products. Applications. Vector functions: differentiation and integration. Statics of a particle: force, parallel forces, couples, moments and application of vectors in statics. Friction, smooth bodies, tension and thrust, bodies in equilibrium (rough, horizontal and inclined planes). Centre of gravity. Dynamics of a particle: speed, velocity and acceleration, rectilinear motion with uniform acceleration. Graphical methods. Vertical motion under gravity. Motion down smooth inclined plane. Angular velocity relative motion.

STA121: STATISTICS FOR SCIENTIST **3 Units**

Introduction to probability, binomial, poisson and normal distribution. Test of significance based on the normal distribution. Goodness of fit tests. Regression and correlation. Some basic sampling techniques.

PHS121: INTRODUCTORY PHYSICSI **3 Units**

Pre-requisite: FSC115

Geometrical optics: law of reflection and refraction. Location of images. Plane and curved mirrors. Converging and diverging thin lenses. Aberrations. The eye. Optical instruments. Simple harmonic motion. Wave motion mid wave types. Dispersion. Production of sound in strings and pipes. Resonance applications. Simple description of diffraction and interference: applications to both light and sound waves. Polarization of transverse waves. Atomic structure. Production and properties of X-rays. Radioactivity. Photoelectric emission.

YEAR TWO

GST201: GENERAL AFRICAN STUDIES I **2 Units**

The course exposes students to the different cultures of the African people, geographical location, history and tribes.

FED212: FOUNDATIONS OF EDUCATION 2 Units

A study of educational developments and institutions from ancient time to the present with particular reference to Modern education in Nigeria major Sociological, Comparative and philosophical ideas should be taught. The relationship between school and society must be emphasized.

FED213: INTRODUCTION TO EDUCATIONAL PSYCHOLOGY 2 Units

Theories and conditions of learning and teaching with emphasis on individual differences; motivation, retention, transfer of learning, learning environments etc.; the role of heredity and environment in growth and development, cognitive development; social development; problems of adolescents; child abuse.

FED222: ELEMENTS OF SPECIAL EDUCATION 2 Units

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

STE221: TEACHING MATHEMATICS AT BASIC 7-9 2 Units

Application of mathematics to everyday life, vocations. Other school subjects and professions. Objectives of teaching mathematics in secondary schools and JSS in particular. Characteristics of mathematics and their implications for teaching. Methods of teaching Mathematics. Instructional materials in the teaching of Mathematics. The mathematics teacher.

MAT211: REAL ANALYSIS I 3 Units

Properties of real numbers. Least upper and greatest lower bounds. Sequences and series. Real functions and continuity.

MAT212: ABSTRACT ALGEBRA I 3 Units

Introduction. Binary operations on set. Relations. Introduction to ring theory. Ordering. Introduction to number theory. Functions. Groups, subgroups and cosets. Lagrange's theorem. Homomorphism and isomorphism of groups.

MAT213: MATHEMATICAL METHOD I 3 Units

Further differentiation and integration. Maclaurin series, Taylor series (mean value theorems). Functions of several variables: partial differentiation, function of a function, differentials exact differential, total derivative, change of variables. Jacobians Taylor series in two variables. Applications of partial derivatives to geometry errors. Extreme

and the use of Lagrangian multipliers. Differential equations: first order equations. Separable, homogeneous, exact, linear, Bernoulli and Ricatti equation, geometric and physical application. Exponential function, exponential growth and decay problems. Hyperbolic functions.

MAT215: HISTORY OF MATHEMATICS 2 Units

History of early Egyptian, Greek and Japanese Mathematics. Contribution of these mathematicians to the development of calculum.

MAT216: NUMERICAL ANALYSIS I 3 Units

Finite difference operators' solution of nonlinear equations: bisection, regula-filsi, secant and newton Raphson method. Error analysis. Finite difference operators. Interpolation language, newton divided difference, newton Gregory forward and backward difference, numerical differentiation.

MAT221: REAL ANALYSIS II 2 Units

Functions of a real variable. The Riemann integral and its consequences. Improper integral and convergence. Continuity of functions of several variables.

MAT222: LINEAR ALGEBRA I 2 Units

Matrices, matrix addition and multiplication, transpose matrices and system of linear equations, elementary row operations, echelon and row-reduced echelon matrices. Vector spaces, subspaces, linear combinations and linear independence, basis and dimension. Rank of a matrix and application to linear equations. Linear mapping, kernel and image of a linear mapping. Matrices and linear operators. Matrix representation of a linear operator. Change of basis. Similarity. Determinants. Classical Ajoint. Application of linear equations.

STA211: PROBABILITY THEORY I 3 Units

Combinatorial analysis. Probability spaces. Discrete and continuous random variables. Moment generating functions. Chebyshev's inequality.

STA222: STATISTICAL METHODS 2 Units

Vectors and random variables. Sum, product and quotient of random variables. Binomial proportions. Correlation co-efficients. Estimation by confidence interval and tests of hypothesis. Simple and multiple linear regression. Analysis of variance and of covariance (one-way, two-way and Latin square).

CSC220: COMPUTER AS A PROBLEM-SOLVING TOOL 3 Units

Classes of problems and Design of Algorithms. Concept of Problem-solving. Effective Problem-solving using current computer environments. Problem-solving strategies. The

role of algorithms in the problem-solving process. Implementation strategies for algorithms. Debugging strategies. The concept and properties of algorithms. Tools and techniques using a modern language as a tool.

YEAR THREE

MAT323: MATHEMATICAL METHOD II **3 Units**

Laplace transforms and their inverse convolution theorem. Fourier series: Fourier co-efficient and expansions. Cosine and sine series. Change of interval. Second order ordinary differential equations with constant coefficients. General theory of the order linear equations. Solution by Laplace transform method. Total differential equations. Partial differential equations: classification, Euler's equation and its general solution. Application of ordinary differential equation to physical, life and social sciences.

MAT324: MECHANICS III **3 Units**

Motion in 2-dimensions: use of polar coordinates. Motion in a circle. The conical pendulum. The governor. Constrained motion in a vertical circle and on a sphere. Simple harmonic motion. Amplitude, period, frequency. Simple pendulum. Elastic strings. Second pendulum. Motion in a resisting medium: vertical motion under gravity, with resistance proportional to speed and to square of speed. Damped, harmonic motion, projectiles in resisting medium, variable mass motion. Dynamics of a rigid body: product of inertia, principal axes, the momental ellipse, virtual work and D'Alembert's principle.

CSC327: INTRODUCTION TO INFORMATION PROCESSING **3 Units**

Information Systems, Management Information Systems, Information Processing, Information Systems output and storage, principles of Data Communication, Data Security and Control, Sorting and Searching.

FED311: BASIC PRINCIPLES OF CURRICULUM DEVELOPMENT AND INSTRUCTION **2 Units**

The course presents basic concepts and principles of curriculum, curriculum development, instruction, and the relationship between curriculum and curriculum instruction. It further exposes the students to the various selected theories and models of curriculum development, basic principles of content selection and objective formulations, applications to school subjects with particular reference to the National Policy on Education and other ways of pursuing curriculum improvements in the schools.

FED 321: RESEARCH METHODS AND STATISTICS **2 Units**

The purpose of this course is to develop in the student the requisite skills for conducting and reporting research in Education. Topics discussed include overview of research

process. General framework for developing research. Types of research design. Literature review. Populations. Samples. Research instruments.
At the end of the courses the students will be required to write a proposal, preparing and starting them with writing their project.

FED313: MEASUREMENT AND EVALUATION 2 Units
Evaluation in the teaching process. Different techniques of evaluation: objective, essay, oral, performance and non-testing devices. Experience in test construction, administration, scoring, analysis and interpretation.

FED301: INTRODUCTION TO EDUCATIONAL TECHNOLOGY AND ICT 2 Units
The concept, application and psychological foundations of educational technology. Educational media. Teaching methods and techniques. Community resources for teaching and learning processes. Systems approach to instruction. Programmed instruction. Computer in education and practicals.

FED314: TEACHING PRACTICE I 3 Units
Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

STE 312: TEACHING MATHEMATICS AT SSS 3 Units
Objectives of teaching mathematics in SSS. Content of the core curriculum in Mathematics. Compulsory nature of mathematics in SSS. Relationship of mathematics with other school subjects. Problems of teaching and learning of mathematics at SSS. Planning and teaching mathematics lessons. Teaching and learning materials in secondary school Mathematics. Classroom evaluation in Mathematics. Assessment, diagnostic and remediation examination and test. Day-to-day classroom evaluation. Written work, oral work. Correction of students' work in Mathematics. Teaching mathematical concepts. Difficult topics in SSS mathematics syllabus. Problem solving in Mathematics.

MAT311: COMPLEX ANALYSIS I 3 Units
Functions of a complex variable. Analysis functions. Complex integration. Cauch's theorem and its consequences. Calculums of residues. Complex sequences.

MAT313: ABSTRACT ALGEBRA II 3 Units
Sets and mapping. Elementary properties of a ring. Sub-rings and homomorphism's. Ideas and quotient rings. Isomorphism theorems and direct sums. Unique factorization domains,

principal ideal domain and euclidean domains. Polynomial forms and polynomial functions over a ring. Euclidean algorithm for polynomials

MAT321: LINEAR ALGEBRA II **3 Units**

Eigenvalue and Eigenvectors. Diagonalization and Eigenvectors, Characteristic polynomial, minimum polynomial. Cayley-Hamilton theorem. Bilinear forms. Bilinear forms and matrices. Alternating and symmetric. Bilinear forms. Quadratic forms. Real symmetric bilinear forms. Hermitian forms. Inner product spaces. Cauchy-Schwartz inequality. Orthogonality, orthonomal sets. Gram-Schmidt Orthogonalization processes. Linear aunctional and Adjointoperatorsm. Orthogonal and unit matrices. Canonical forms. Triangular forms. Primary decomposition. Jordan canonical forms.

MAT325: VECTORS AND TENSORS **3 Units**

Line and multiple integral. Vector theory: gradient, divergence and curl. Vector line, surface and volume integral. Green's strokes and divergence theorems. Gauss's theorem. Curvilinear coordinates. Tensor analysis: tensor algebra, transformation laws. Cartesian tensors.

STA 322: REGRESSION ANALYSIS **3 Units**

General theory of least squares. Matrix approach top linear regression. The examination of residuals. Polynomial regression and the use of dummy variables. Simple geometric interpretation of least squares. Elementary treatment of nonlinear least squares.

YEAR FOUR

MAT412: REAL ANALYSIS III **3 Units**

Sets logic: connectives, quantifier, validity of arguments, some methods of proof. Extended real number system. Topology of the real line. Bolzano-Weierstrass. Theorem: uniformly continuous function. Riemann-Stieltjes integral for bounded functions. Functions of bounded variation.

MAT422: MATHEMATICAL METHODS III **3 Units**

Simple variable co-efficient. Ordinary differential equation. Series solutions of second order linear equations. Hypergeometric, Bessel and Legendre equations and functions. Gamma and beta function. Sturm-Liouville theory. Generalized Fourier expansion. Partial differential equations: separation of variables, transform techniques. Application to Laplace wave and heat equations.

STE424: TEACHING FURTHER MATHEMATICS AT SSS **3 Units**

Historical background to the introduction of further mathematics in SSS. Aims and objectives of teaching further mathematics. Content analysis of further Mathematics.

Comparison of further mathematics and the old additional mathematics syllabus. Micro-teaching of the various topics in further mathematics.

GST407: ENTREPRENEURSHIP AND CORPORATE GOVERNANCE 2 Units
Principle and concept of corporate Governance and Entrepreneurship.

STA421: SAMPLE SURVEY 2 Units
Simple random sample. Sampling of attributes, Stratified and cluster sampling. Sample size estimation. Ratio and Regression estimators in simple random sampling and stratified sampling. Systematic and multi stage sampling. Errors in sample survey.

STA 423: OPERATIONS RESEARCH I 3 Units
Nature and scope of operations research. Linear programming and graphical, simplex (including big M and two-phase) methods. Sensitivity analysis. Duality theory. Transportation and assignment problems. Network analysis. CPM and PERT. Inventory theory and applications, sequencing and scheduling.

STA424: PROBABILITY THEORY I 3 UNIT
Combinatorial analysis. Probability spaces. Discrete and continuous random variables. Moment generating functions. Chebyshev's inequality.

MAT411: FUNCTIONAL ANALYSIS I 3 Units
Normal linear spaces. Norm of quotient space. Linear operators on normal linear spaces. The Hahn-Banach, open mapping and closed graph theorems.

MAT416: GROUP THEORY 3 Units
The group concept, subgroups, Lagranges's theorem. Normal subgroups, correspondence theorem. Isomorphism theorems. Cyclic groups, permutation groups. Conjugacy classes of Sn and An. Simplicity of the alternating groups. Direct product. Solvable groups and Jordan-Holder theorem. Group actions: p-groups and slow theorems and applications.

MAT413: GENERAL TOPOLOGY I 3 Units
Revision of set theory. Topological spaces, bases, sub-bases, continuity. Separation axioms, compactness and connectedness Metric spaces.

MAT415: FLUID MECHANICS I 3 Units
Real and ideal fluid. Differentiation following the motion of fluids particles, Equation of continuity. Equation of motion for incompressible in viscid fluids. Velocity potential and Stokes's stream function. Bernoulli's equation with applications. Kinetic energy. Sources,

sinks, doublets in 2 and 3 dimensions stream lines. Images. Use of conformal transformation.

MAT421: LINEAR PROGRAMMING 3 Units

Formulation of linear programming problems. Simplex method. The problem of duality. Transportation and assignment problems.

FED 414: TEACHING PRACTICE II 3 Units

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

YEAR FIVE

FED 513: INTRODUCTION TO EDUCATIONAL MANAGEMENT 2 Units

Some Concepts and Definitions. History of Educational Management in Nigeria General Principles of Educational Administration. Concepts of Organization(s) Organizational Structure and Management of Education in Nigeria. Financing Education in Nigeria. School Records. School Supervision School Inspection. Leadership in Education. Some Management Techniques in Education Theories of Educational Management. Discipline in Schools (Staff and Students).

Conflict Management in Schools. Case Studies in Educational Management School Mapping, Plant Planning & Facilities Management. Human Relationship in Educational Management.

FED 521: RESEARCH PROJECT 3 Units

Educational research. Choosing a research topic. Review of relevant literature. Research design and methodology. Treatment and analysis of data. Findings and recommendations. The abstract. References/bibliography.

FED 523: GUIDANCE &COUNSELLING FOR TEACHERS 2 Units

Explanation of the meaning, history and objectives. Basic principles and techniques of guidance and counselling. Interaction with learners. Need for guidance and counselling. Educational, vocational and personal-social guidance and counselling. Individual and group guidance and counselling. Characteristics of a professional counsellor. Guidance services in schools. Other school personnel and the guidance programmes.

STE 525: CURRICULUM DEVELOPMENT IN MATHEMATICS 2 Units

The mathematics curriculum: the components. Factors that influence the content of mathematics curriculum in Nigerian schools. The Benin 1976 conference in mathematics.

Professional and non-professional bodies in mathematics curriculum development. Mathematics curriculum in schools. Trends in mathematics curricula of primary and secondary schools. Teacher education in mathematics. Evaluation of mathematics programmes. Problems associated with implementations of mathematics programmes. Fundamental concepts in school Mathematics. Evaluation of mathematics textbooks in schools. Writing mathematics textbooks and the guidance programmes.

MAT 514: DIFFERENTIAL EQUATIONS I **3 Units**

Existence theorems. Linear equation of second order. Solutions nearing singular points. Linear equation of the second order with periodic coefficients. Floquet's theorem.

MAT 521: LEBESGUE MEASURE AND INTEGRATION **3 Units**

Lebesgue measure: Inner and outer measure. Measurable and non-measurable sets, length of set. Measurable subsets of the real line. Borel sets, Vitali's covering theorem, Cantor set. Measurable functions: Egorov's theorem, Baire's class. Lebsgue Integral for bounded, as a limit of sum, non-negative and for unbounded functions, Geometric interpretation of Lebsgue Integral. Relationship of Riemann and Lebesgue integral. The dominated convergence theorem for infinite series, Fatou's theorem, Monotone convergence theorem. The Lebesgue integral for arbitrary function. Introduction to L^p (E)- spaces for measurable subsets E of the real line.

MAT 522: COMPLEX ANALYSIS II **3 Units**

Functions of a complex variable. Analysis functions. Complex integration. Cauch's theorem and its consequences. Calculums of residues. Complex sequences

MAT 525: FLUID MECHANICS II **3 Units**

Governing equations of viscous flow, exact solutions, low Reynold's number solutions, Boundary layers, Compressible flows.

MAT 541: FUNCTIONAL ANALYSIS II **3 Units**

Inner product spaces. Complete Orthonormal sets and relationship with Fourier series. Introduction to Banach Algebra.

MAT 542: GENERAL TOPOLOGY II **3 Units**

Product spaces. Quotient spaces. Countable and local compactness. Complete metric spaces.

STA 522: PROBABILITY THEORY II **3 Units**

Combinatorial analysis. Probability spaces. Discrete and continuous random variables. Moment generating functions. Chebyshev's inequality

STA 523: SPECIAL TOPICS IN STATISTICS **3 Units**

A Survey of tools in applied statistics with emphasis on time series methods. Biostatistics. Quality control and statistical packages.

STA 524: OPERATIONS RESEARCH II **3 Units**

Integer programme problem: Formulations and solution methods. Non-linear programming: Search methods, Newton-Raphson method, Frit-John optimality conditions and Lagrangian multipliers. Network analysis. Transportation and assignment problems. Path methods including Bellman's equations, cyclic and network with positive paths. Dynamic programming: Routine of problems, resources allocation and equipment replacement.

B.Sc. EDUCATION PHYSICS
YEAR ONE NEW CURRICULM

COURSE CODE	COURSE TITLE	STATUS	UNITS
			COMPULSORY COURSES
GST 102	Introduction to Logic and Philosophy	C	2
GST 105	Use of English	C	2
FSC 111	Introductory Biology	C	3
FSC 112	Introductory Chemistry I	C	3
FSC 113	Introductory Computer Science	C	3
FSC 114	Introductory Mathematics	C	3
FSC 115	Introductory Physics I	C	3
GST 103	Nigerian Peoples and Cultures	C	2
FED 121	General Principles of Teaching	C	2
PHS 121	Introductory Physics II	C	3
PHS 122	Introductory Physics III	C	3
PHS 123	Introductory Practical Physics	C	2
MAT 122	Calculus	C	3
ELECTIVE COURSE (MINIMUM OF 3 UNITS)			
STA 121	Statistics for Scientists	E	3
MAT 121	Algebra & Coordinate Geometry	E	3
TOTAL UNITS OF COMPULSORY COURSES			**34**
TOTAL UNITS OF ELECTIVE COURSES			**3**

YEAR ONE OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	FED 100	Introduction to the teaching Profession	2C	345
2.	GST 105	Use of English	2R	337
3.	GST 102	Philosophy and Logic	2R	357
4.	FSC 102	Introductory Chemistry	3C	340

5.	FSC 103	Introduction to Computer Science	2C	341
6.	FSC 104	Introductory Mathematics	3C	342
7.	FSC 105	Introductory Physics	3C	343
8.	MAT 101	Algebra, Coordinate Geometry	2C	346
9.	MAT 102	Calculus	2C	347
10.	PHS 101	Introductory Physics I	2C	348
11.	PHS 102	Introductory Physics II	3C	349
12.	PHS 103	Introductory Practical Physics	3C	350
13.	FSC 101	Introduction to Biology	3	339
14.	MAT 103	Tensor	3	353
			32	

YEAR TWO NEW CURRICULUM

COURSE CODE	**COURSE TITLE**	**STATUS**	**UNITS**
COMPULSORY COURSES			
GST 211/GST 201	General African Studies	C	2
FED 212	Foundation of Education	C	2
FED 213	Introduction to Educational Psychology	C	2
PHS 211/PHS 201	Classical Mechanics I	C	2
PHS 214/PHS 204	Modern Physics I	C	2
PHS 216/PHS 206	Electronics I	C	3
PHS 218	Experimental Physics IA	C	1
FED 222	Elements of Special Education	C	2
STE 213/STE 203	Teaching Integrated Science at Basic 7-9	C	2
PHS 222/PHS 202	Thermal Physics	C	2

PHS 223	Introductory Astrophysics	C	2
PHS 225/PHS 205	Oscillation and Waves	C	2
PHS 227/PHS 205	Geometric Optics	C	2
ELECTIVE COURSE (MINIMUM OF 4 UNITS)			
MAT 233/MAT 206	Mathematical Methods I	*E	3
PHS 226/ PHS 362	Workshop Practical	*E	2
PHS 229/PHS 309	Theoretical Physics I	*E	2
CSC 227	Introduction to Information Processing	E	2
MAT 123	Mechanics I	*E	3
TOTAL UNITS OF COMPULSORY COURSES			**26**
TOTAL UNITS OF ELECTIVE COURSES			**10**

YEAR TWO OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	GAS 201	General African Studies I	2R	356
2.	EDA 201	History & Dev. Of Edu. In west Africa	2C	358
3.	EDF 211	Introduction to Philosophy of Education	1C	377
4.	EDF 220	Human Learning	1C	360
5.	EDF 224	Sociology of Education	2C	362
6.	STE 201	General Principle of Teaching	2C	374
7.	HKE 251	PERSONAL Health and Physical Fitness	2E	386
	OR			
	ADE 201	Foundation of Adult Education	2E	368
8.	PHS 201	Classical Mechanics I	2C	381

9.	PHS 202	Thermodynamics I	2C	364
10.	PHS 203	Electricity and Magnetism	2C	382
11.	PHS 204	Modern Physics II	2C	365
12.	PHS 205	Oscillation and Waves	2C	366
13.	PHS 206	Electronics I	2C	363
14.	MAT 206	Differential Equation	2E	281
15.	PHS 207	Optics	2C	395
16.	PHS 220/221	Practical Physics II	2C	367
			32	

YEAR THREE NEW CURRICULUM

COURSE CODE	**COURSE TITLE**	**STATUS**	**UNITS**
COMPULSORY COURSES			
FED 311	Basic Principle of Curriculum and Instruction	C	2
FED 313/EDF 212	Measurement and Evaluation	C	2
FED 314/FED 317	Introduction to Educational Technology & ICT	C	2
PHS 311/PHS 301	Classical Mechanics II	C	2
PHS 313/ PHS 303	Electrodynamics I	C	2
FED 321	Research Methods and Statistics	C	2
PHS 323	Energy Physics	C	2
PHS 324/PHS 304	Modern physics II	C	2
PHS 325/ PHS 305	Physics Optics	C	2
ELECTIVE COURSE (MINIMUM OF 4 UNITS)			
PHS 319/ PHS 309	Solid State Physics I	*E	2
PHS 322/ PHS 302	Statistical Physics I	E	2
STI 323	Physics in Integrated Science	E	2

PHS 321/ PHS 301	Quantum mechanics I	*E	2
PHS 317/ PHS 307	Mathematical Methods II	*E	3
TOTAL UNITS OF COMPULSORY COURSES			**18**
TOTAL UNITS OF ELECTIVE COURSES			**6**

YEAR THREE OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	STE 202	Microteaching & Classroom Observation of Behavior	1C	375
2.	GST 202	General African Studies II	2R	373
3.	EDA 202	The Development of Educational Administration in Nigeria (1960 – date)	2C	359
4.	EDF 221	Growth and Development	1C	378
5.	EDF 222	Measurement and Evaluation	2C	361
6.	EDU 317	Teaching Practice I	3C	405
7.	STE 301	Introduction to Educational Technology	2C	391
8.	STE 203	Teaching Integrated Science at JSS	3C	377
9.	PHS 321/32	Practical Physics III	2C	367
10.	PHS 301	Classical Mechanics	2C	383
11.	PHS 362	Workshop Practice	2C	387
12.	PHS 263	Electronics I A	2C	388
13.	PHS 303	Electrodynamics	2C	406
14.	PHS 305	Physical Optics	2C	333
			27	

YEAR FOUR NEW CURRICULUM

COURSE CODE	COURSE TITLE	STATUS 'C' OR 'E'	UNITS
			COMPULSORY COURSES
FED 413	Introduction educational Management	C	2
GST 407	Entrepreneurship and Corporate Governance	C	2
FED 414	Teaching Practice II	C	6
PHS 413	Electrodynamics II	C	2
STE 333	Teaching Physics at SSS	C	2
PHS 316	Electronics II	C	2
PHS 318	Experimental Physics II A	C	2
STI 424	Practical Physics	C	2
			ELECTIVE COURSE (MINIMUM OF 4 UNITS)
STI 324	Energy and Force in Integrated Science	E	2
PHS 410	Mathematical Physics II	E	2
PHS 414	Solid State Physics II	E	2
TOTAL UNITS OF COMPULSORY COURSES			**20**
TOTAL UNITS OF ELECTIVE COURSES			**4**

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YEAR 4

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	FED 316A	Conducting & Reporting Research in Edu	1C	402
2.	FED 417	Teaching Practice	3C	327

3.	EDA 305	Financing Education in Nigeria	2C	403
4.	ADE 322	Mass Media & Methods of Distance Edu	2E	398
	OR			
	HKE 357	Safety Education	2E	400
5.	STE 311	Teaching Physics at SSS	3C	392
6.	PHS 304	Modern Physics II	2C	407
7.	PHS 306	Electronics II	2C	330
8.	PHS 307	Theoretic Physics II	2C	408
9.	PHS 310	Special Relativity	2E	412
10.	PHS 210	Properties of Matter	2C	396
11.	PHS 302	Quantum Mechanics I	2C	387
12.	STE 314	Teaching Science at SSS Level	3C	401
			25	

YEAR FIVE NEWCURRICULUM

COURSE CODE	**COURSE TITLE**	**STATUS 'C' OR 'E'**	**UNITS**
			COMPULSORY COURSES
PHS 310	Special Relativity	C	2
PHS 416	Plasma Physics	C	2
PHS 412	Statistical Physics	C	2
FED 488	Research Project	C	3
FED 423	Guidance and Counselling	C	2
STE 441	Curriculum Development in Physics	C	2
			ELECTIVE COURSE (MINIMUM OF 4 UNITS)
PHS 423	Ionospheric Physics	E	2
PHS 424	Lower atmospheric Physics	E	2
PHS 427	Modern Optics	E	3
PHS 415	Nuclear Physics	E	2

TOTAL UNITS OF COMPULSORY COURSES	**13**
TOTAL UNITS OF ELECTIVE COURSES	**4**

YEAR FIVE OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	UNITS STATUS	COMPUTER CODE
1.	STE 401	Basic Principle in Curriculum	2C	322
2.	EDA 401	The Organization of Primary Education in Nigeria	2C	393
3.	FED 316 B	Conducting and Reporting Research	1C	313
4.	PHS 309	Solid State Physics	2C	333
5.	PHS 364	Electronics II B	2C	334
6.	PHS 403	Electrodynamic II	2C	881
7.	PHS 406	Elementary Particle Physics	2C	330
8.	FED 416	Project	3C	326
9.	FED 417	Teaching Practice	3C	327
10.	GST 307	Entrepreneurship	3C	091
			16	

YEAR SIX OLD CURRICULUM

S/NO.	COURSE CODE	COURSE TITLE	STATUS	UNITS
1.	HKE 421	Contemporary Issues in P.H.E, Recreation and sports	2	E
3.	EDF 417	Continuous Assessment & Guidance Tools	2	C
4.	EDA 402	Emergent Problems in Nigerian Education	2	C
5.	STE 422	Curriculum in Physics	2	C

6.	PHS 401	Quantum Mechanics II	2	C
7.	PHS 402	Statistical Physics	2	C
8.	PHS 404	Solid State Physics	2	E
9.	PHS 405	Nuclear Physics	3	C
10.	PHS 407	Electronics III	3	C
			21	

Summary of number of compulsory and elective courses to be taken/ available at each Level for B.A. /B.Sc. (Hons.) Education Physics

YEAR	Total of compulsory courses	Total of elective courses
ONE	34	0
TWO	26	10
THREE	18	6
FOUR	20	4
FIVE	13	6
	111	**26**

**** GST 102, GST 103, GST 105, FED121**

Remark:
Direct Entry students must take all General Studies Courses (GST)
To graduate, a student must pass a minimum of:

IV. 128 units for a 5-year degree
V. 96 units for a student on direct entry

This minimum will include:

V. All University requirements: GST 102, 103, 201, 407 (10 units)
VI. All faculty requirements: FSC 111, 112, 113, 114, 115
VII. Departmental Requirements: All Compulsory courses
VIII. Electives-ONLY from those listed and approved by the Department

Note: 10-12% of the total units should be elective courses

SYNOPSES OF COURSES (PHYSICS)

YEAR ONE

GST102: PHILOSOPHY AND LOGIC **2 Units**

A brief survey of the scope, notion, branches and problems of philosophy. Elements of Western and African philosophy. Symbolic logic, special symbols in symbolic logic; conjunction, affirmation, negation, disjunction, equivalence and conditional statements. Laws of thought. Method of deduction using rules of inference and bi-conditionals. Qualification theory.

GST103: NIGERIAN PEOPLES AND CULTURES 2 Units

The course exposes students to the different cultures of the Nigeria people, geographical location, history and tribes.

GST105: USE OF ENGLISH 2 Units

The course enables students to acquire improved study skills and better communicative skills in the use of English for general and academic purposes at the University level.

FED121\FED100: GENERAL PRINCIPLES OF TEACHING 2 Units

This course exposes student-teachers with the concepts of profession, principles of teaching professions, and rudiments of teaching and learning. It emphasizes on types of teaching activities for selecting and stating objectives, lesson planning units, modules and daily lesson plan. It further exposes pre-service teachers to all aspects of teaching and class management before embarking on teaching practice. Students are also introduced to the various attributes and characteristics of the teaching profession, while equipping students with the essential qualities and multiple roles of a good and effective teacher.

FSC 111: INTRODUCTORY BIOLOGY 3 Units

History of biology. Characteristics and classification of living things. Reproduction. Interrelationship of organisms. Heredity and evolution.

FSC 112: INTRODUCTORY CHEMISTRY 3 Units

Measurement and precision. Hypothesis. Theory and law with appropriate illustration. Nature of matter – the three states of matter. Atomic structure electronic energy levels and orbitals. Periodic classification of elements and its relationship to their eletronic configurations. Mole concept and calculations based on it, including application to titrimetry and balancing of equation by electron transfer method. Types and chemical reactions and stoichiometric calculations. Different methods of expressing concentrations of solution. Chemical kinetics and equilibria and related simple calculations. Important applications of equilibria like Ph. Solubility. Product and solubility of ionic solids. Thermochemistry and simple calculations based on Hess's Law. Electrochemistry and working of various cells. Brief mention of corrosion. Organic chemistry. Simple reactions of hydrocarbons. Alchohols and acids. Petroleum chemistry. Oils and fats. Hydrogenations of oils. Polymer and biologically important molecules.

FSC 113: Introductory Computer Science **3 Units**

Hardware: functional components. Software. System application packages. Program development. Flowcharting. Program objects. Basic programming. Computer application areas and technological trends.

FSC 114: Introductory Mathematics **3 Units**

Elementary set theory. Subsets. Union. Intersection. Complements. Venn diagrams. Real numbers. Integer. Rational and irrational numbers (Mathematical induction).Real sequences and series. Theory of quadratic equations. Binomial theorem. Trigonometry. Circular measure. Trigonometric functions of angles of any magnitude and trigonometric formulae. Complex numbers. Algebra of complex numbers. The Argand diagram. De Moivre's theorem (nth root of unity). Coordinate geometry. Straight line and elementary treatment of circles.

FSC 115: Introductory Physics **3 Units**

Physical quantities. Standards and units. Kinematics: uniform velocity motion. Uniform acceleration motion. Dynamics: Newton's laws of motion, Newton's universal law of gravitation. Work, energy, conservation laws. Concept of mechanical equilibrium. Centre of mass and centre of gravity. Moment of a force. Rotational motion. Angualar momentum and torque. Total mechanical energy. Elasticity. Hooke's law. Young's shear and bulk modulus hydrostatics. Pressure Buoyancy. Archimedes' principle. Elements of hydrodynamics. Molecular properties of fluids. Viscosity. Surface tension. Adhesion. Cohesion. Capillarity. Drops and bubbles. Temperature and Zeroth law of thermodynamics. Quality of heat. Heat Transfer. Gas laws. First and second laws of thermodynamics. Application to kinetic theory of gases.

MAT 122: CALCULUS **3 Units**

Functions of a real variable, graphs, limits and notion of continuity. Differentiation: differentiation of algebraic functions, trigonometric functions, composites function and chain rule, higher order derivatives. Application: rectilinear motion, tangents and normals, maximum and minimum, rate of change and curve sketching. Integration: integration as inverse of differentiation, definite integral, techniques of integration. Applications: areas, volumes and moment of inertia.

PHS 121: Introductory Physics II **3 Units**

Pre-requisite: FSC115

Geometrical optics: law of reflection and refraction. Location of images. Plane and curved mirrors. Converging and diverging thin lenses. Aberrations. The eye. Optical instruments. Simple harmonic motion. Wave motion mid wave types. Dispersion. Production of sound in

strings and pipes. Resonance applications. Simple description of diffraction and interference: applications to both light and sound waves. Polarization of transverse waves. Atomic structure. Production and properties of X-rays. Radioactivity. Photoelectric emission.

PHS 122: Introductory Physics III **3 Units**

Pre-requisite: FSC 115

Electrostatics. Potential and capacitance, dielectrics, production and measurement of static electricity. Current. Ohm's law. Resistance and resistivity. Heating. Galvanometers, voltmeters and ammeters. DC circuit. Sources of emf and currents. Kirchhoff's laws. Electrochemistry. The earth's magnetic fields and induction. Faraday's and Lenz's laws. Force on a current carrying conductor. Biot-Savarl law. Fleming's right and left hand rules. Motors and generators

PHS 123: Introductory Practical Physics **2 Units**

Simple experiments illustrating the key topics covered in FSC 115, DPH 121 and DPH 122.

PHS 211: Classical Mechanics **2 Units**

*Pre-requisites:*FSC 115

Review of coordinate transformations. Particle kinematics and dynamics. Systems of particles. Central orbits - Keplerian case. Elementary motion of rigid bodies. Newtonian gravitation. Conservative forces and potentials. Defects of Newtonian mechanics and the essence of special relatively.

PHS 214: Modern Physics II **2 Units**

The electron. Discovery. Properties. Atomic structure. X-Ray spectra. Mass spectra. Structure of the nucleus. Nomenclature. Binding energy. Stability. Radioactivity. Discovery properties. Radioactive series. Accelerators. Detectors.

PHS 216: Electronics 1A **2 Units**

Electrons in matter. Electron emission. Tube devices: structure, characteristics. Semiconductors. Doping. Transport phenomena in semiconductors. p-n junctions. Characteristics. Applications.

PHS 218 Experimental Physics I A **2 Unit**

Simple experiments illustrating the key topics covered in FSC 115, DPH 121 and DPH 122.

PHS 222: Thermal Physics **2 Units**

Pre-requisites: FSC 115

Thermodynamic systems: equation of state. First law of thermodynamics. Combined first and second laws. Thermodynamic potentials. Applications to simple systems including phase transitions.

PHS 223: Electricity and Magnetism **2 Units**

Electrostatics: method of images. DC network analysis and circuit theories.R.-C and L-C transients. Time constants.AC circuits. Inductance capacitance. Transformers. Eddy currents. Hysteresis. Sinusoidal waveforms rms and peak values. Maximum power theorem. Q-f actor of RLC circuits. Filters.

PHS 225: Oscillations and Waves **2 Units**

Wave phenomena. Acoustical waves. The Oscillator. Wave energy and wave types: longitudinal, transverse, standing, spherical. Wave properties. Group and phase velocities. Doppler effect. Diffraction. Thin films.

PHS 227: Geometric Optics **2 Units**

Geometrical optics. Image formation and location in both Ulinand thick lenses. Principal planes. Interference, diffraction and polarization, masers and lasers. Holography. Dispersion and scattering.

PHS 310: Special Relativity **2 Units**

Einstein postulates and Lorentz transformation. Consequences of transformations of momentum and energy. Experimental verifications of special relativity. Velocity addition theorem and Doppler Effect. Electromagnetic 4-vectors. Transformation of E & H. Lorentz force.

PHS 311: Classical Mechanics II **3 Units**

Degrees of freedom and generalized coordinates. Constraints, Lagrange's formulation of mechanics. Applications. Calculus of variations and the principle of least action. Geodesies. Hamilton's formulation of mechanics. Applications. Invariance and conservation laws. Two-body central force problems. Moving frames of reference. Forced and coupled oscillations. Normal modes. Rigid body motion.

PHS 313: Electrodynamics I **2 Units**

Electrostatics and magneto statics. Dielectrics. Laplace equation and boundary value problems. Hulipole expansions. Maxwell's equations and electromagnetic potentials. Maxwell's wave equation. Conservation laws.

PHS 316: Electronics II A **2 Units**

Introduction to transistors. Transistor parameters. Amplifiers. High frequency limitations. Noise. Introduction of field effect transistors. JFET, MOSPET. Applications to single stage low voltage amplifiers. Feedback and tuned circuits. Oscillators.

PHS 319: Solid-State Physics I **2 Units**

Crystal structure of solids. Crystal binding. X-ray diffraction in crystals; application. Thermal properties of the crystal lattice. Elastic properties, lattice vibrations, phonons. Free-electron theory of metals. Motion of electrons in periodic fields. Hall effect. Energy bands. Semiconductors. Superconductivity.

PHS 321: Quantum Mechanics I **3 Units**

Experimental basis of quantum theory. Black body radiation and Planck's hypothesis. Electron and quanta. Bohr's theory of atomic structur.de Broglie hypothesis. Operators. Postulates of quantum mechanics. Wave particle duality. Schrodinger equations and their solutions. Boundary conditions. Applications. One-dimensional box problem. Potential well and bound sales potential barrier. The tunnel effect. Atomic and molecular structures and reactions fusion and fission.

PHS 323: Energy Physics **2 Units**

Energy and power, principles, demands and outlook. Transformation of energy and its costs. Thermal pollution. Electrical energy from fossil fuels. Hydro-electric generation. Principles and problems. Capacity, storage, reserves, efficiency and environmental effects. Electrical energy from nuclear reactors. Energy in future breeder reactors, fusion power, solar power geothermal power, tidal power.

PHS 324: Modern Physics 11 **3 Units**

Pre-requisite: PHS 214

Properties of atomic orbits. Optical spectra of the hydrogen atom; spontaneous and simulated emissions (lasers and masers). Spectra of alkali metals. Quantum effects. Vector model of the atom: L-S and j-j couplings. Bohr magneton. Space quantization. Stern-Gerlach experiment. Zeeman effect. Hyperfine structure and Isotopes and nuclear spin. Nuclear spin number. Pauli`s exclusion principle, molecular spectroscopy, rotation, vibration rotation, electronic. X-ray spectra. Applications to chemistry Frank Gordon.

PHS 325: Physical Optics **2 Units**

Pre-requisites: PHS 225

Complex representation of waves. Interference of two or more beams light. Coherence. Interference by division of amplitude. Interferemetry, Fraunh offer diffraction grating. Polarization of light, Jones vectors. Double refraction: quarter and half-wave plates.

Optical activity. Modern wave optics. Laser beams. Holography. Optical filtering. Magnete-optics and electro-optics.

PHS 329: Nuclear Physics **3 Units**

Basic nuclear concepts: nuclear structure, nuclear size, nuclear masses, nuclear forces, nucleon scattering, nuclear models. Energy spectra of alpha and beta decays. Fermi-Theory of B-decay, emission, internal conversion. Nuclear reactions. Interaction of nuclear radiation with Matter.

PHS 412: Statistical Physics **2 Units**

Basic concepts of statistical mechanics. Microscopic basis of mechanics and applications to macroscopic systems. The perfect classical gas. Maxwcll-Bollamann distribution. The real gas. Configurational partition function. Phase transformations. The perfect quanta gas: Rose-Einstein, Fermi-Dirac, Black- body, Rose-Einstein condensation.

PHS 413: Electrodynamics II **2 Units**

Pre-requisite: PHS 313

Propagation of plane waves in unbounded isotropic media, re-fled ion, refraction. Transmission lines, wave guides and resonant circuits. Radiation from an oscillating dipole. Radiation from moving charges.

PHS 414: Solid State Physics 11 **2 Units**

Pre-requisite: PHS 319

Dielectric properties. Magnetism: paramagnetism and diamagnetism; ferromagnetism and anti-ferromagatisms. Magnetic resonance. Imperfections in solids.

PHS 416: Plasma Physics **3 Units**

Orbits of individual particles. Boltzmann equation. Magnetohydynamics. Confinement of plasmas research and industrial applications.

PHS 421: QUANTUM MECHANICS II **3 Units**

Pre-requisite: PHS 321

Harmonic oscillators. Three-dimensional spherical symmetric potentials. Angular momentum and spin of atomic and nuclear particles. Dirac notation. Multielectron atoms. Perturbation theory, scattering theory, elastic potential scattering. Green function and method of partial waves, applications.

PHS 423: IONOSPHERIC PHYSICS **3 Units**

The sun and formation of ionized layers. Formation and structure of DE and F layers of the ionosphere. Vertical and oblique propagation of radio waves in the ionosphere. Ionospheric absorption and fading. Ionospheric disturbances.

PHS 424: LOWER ATMOSPHERE PHYSICS 3 Units

Atmospheric composition and structure. Thermodynamics of water vapour and air. Hydrostatic stability and convection, tephigrams, gradients and winds. Radiation in the atmosphere, absorption, scattering. Absorption spectra: electronic, vibrational, rotational; lines and bands. Broadening processes; pressure/collision. Doppler. Radiometric quantities: definitions and measurements.

GST 417: ENTREPRENEURSHIP AND CORPORATE GOVERNANCE 2 Units

Principles and concepts in Corporate Governance.

MAT 123: MECHANICS I 3 Units

Vectors: vector addition, subtraction, scalar multiplication, linear dependence. Geometric representation of vectors in 1 – 3 dimensions, rectangular components, direction cosines. Scalar and vector product of two vectors. Triple scalar and vector products. Applications. Vector functions: differentiation and integration. Statics of a particle: force, parallel forces, couples, moments and application of vectors in statics. Friction, smooth bodies, tension and thrust, bodies in equilibrium (rough, horizontal and inclined planes). Centre of gravity. Dynamics of a particle: speed, velocity and acceleration, rectilinear motion with uniform acceleration. Graphical methods. Vertical motion under gravity. Motion down smooth inclined plane.Angular velocity relative motion.

MAT 121 STATISTICS FOR SCIENTIST 3 Units

Introduction to probability, binomial, poisson and normal distribution. Test of significance based on the normal distribution. Goodness of fit tests. Regression and correlation. Some basic sampling techniques.

MAT 216: MATHEMATICAL METHOD I 3 Units

Further differentiation and integration. Maclaurin series, Taylor series (mean value theorems). Functions of several variables: partial differentiation, function of a function, differentials exact differential, total derivative, change of variables. Jacobians Taylor series in two variables. Applications of partial derivatives to geometry errors. Extreme and the use of Lagrangian multipliers. Differential equations: first order equations. Separable, homogeneous, exact, linear, Bernoulli and Ricatti equation, geometric and physical application. Exponential function, exponential growth and decay problems. Hyperbolic functions.

STE 213: TEACHING INTEGRATED SCIENCE AT BASIC 7-9 2 Units

Historical development of integrated science. Principles, objectives, techniques and thematic approach in integrated science. Instructional facilities. Improvisation. Laboratory safety and precaution.

MAT 227: MATHEMATICAL METHOD II 3 Units

Laplace transforms and their inverse convolution theorem. Fourier series: Fourier co-efficient and expansions. Cosine and sine series. Change of interval. Second order ordinary differential equations with constant coefficients. General theory of the order linear equations.Solution by Laplace transform method. Total differential equations. Partial differential equations: classification, Euler's equation and its general solution. Application of ordinary differential equation to physical, life and social sciences.

FED 413: INTRODUCTION TO EDUCATIONAL MANAGEMENT 2 Units

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

FED 414: TEACHING PRACTICE 6 UNITS

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

FED 423: GUIDANCE &COUNSELLING 2 Units

Explanation of the meaning, history and objectives. Basic principles and techniques of guidance and counselling Interaction with learners. Need for guidance and counselling. Educational, vocational and personal-social guidance and counselling. Individual and group guidance and counselling. Characteristics of a professional counsellor. Guidance services in schools. Other school personnel and the guidance programmes.

FED 421: RESEARCH PROJECT 3 Units

Educational research. Choosing a research topic. Review of relevant literature. Research design and methodology. Treatment and analysis of data. Findings and recommendations. The abstract. References/bibliography.

FED 212: FOUNDATIONS OF EDUCATION 2 Units

A study of educational developments and institutions from ancient time to the present with particular reference to Modern education in Nigeria major Sociological, Comparative

and philosophical ideas should be taught. The relationship between school and society must be emphasized.

FED 213: INTRODUCTION TO EDUCATIONAL PSYCHOLOGY 2 Units

Theories and conditions of learning and teaching with emphasis on individual differences; motivation, retention, transfer of learning, learning environments etc; the role of heredity and environment in growth and development, cognitive development; social development; problems of adolescents; child abuse.

FED 222: ELEMENTS OF SPECIAL EDUCATION 2 Units

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

FED 311: BASIC PRINCIPLES OF CURRICULUM DEVELOPMENT AND INSTRUCTION 2 Units

The course presents basic concepts and principles of curriculum, curriculum development, instruction, and the relationship between curriculum and curriculum instruction. It further exposes the students to the various selected theories and models of curriculum development, basic principles of content selection and objective formulations, applications to school subjects with particular reference to the National Policy on Education and other ways of pursuing curriculum improvements in the schools.

FED 321: RESEARCH METHODS AND STATISTICS 2 Units

The purpose of this course is to develop in the student the requisite skills for conducting and reporting research in Education. Topics discussed include overview of research process. General framework for developing research. Types of research design. Literature review, Populations, Samples, Research instruments. At the end of the courses the students will be required to write a proposal, preparing and starting them with writing their project.

FED 313: MEASUREMENT AND EVALUATION 2 Units

Evaluation in the teaching process. Different techniques of evaluation: objective, essay, oral, performance and non-testing devices. Experience in test construction, administration, scoring, analysis and interpretation.

FED 314: INTRODUCTION TO EDUCATIONAL TECHNOLOGY AND ICT 2 Units

The concept, application and psychological foundations of educational technology. Educational media. Teaching methods and techniques. Community resources for teaching and learning processes. Systems approach to instruction. Programmed instruction. Computer in education and practicals.

STE 321: TEACHING PHYSICS AT SSS **3 Units**

Meaning of physics. Aims and objectives of teaching physics. Content analysis of physics curriculum in SSS. Problems of teaching/learning physics. Methods of teaching physics. Planning for effective physics teaching. Materials and facilities for effective physics teaching. The laboratory. Teaching difficult topics. Laboratory practical.

STE 421: CURRICULUM DEVELOPMENT IN PHYSICS **2 Units**

Definition of curriculum development. Curriculum process. Curriculum reforms in science. The physics curriculum.

STI 213: PHYSICS IN INTEGRATED SCIENCE **2 Units**

This course covers all physics concepts contained in the integrated science.

STI 324: ENERGY & FORCE IN INTEGRATED SCIENCE **2 Units**

Principles, transmission of energy. Thermal pollution. Principles and problems. Capacity, storage, reserve efficiency and environmental effects. Atomic structure. Solar power. Geo-thermal power and force, etc.

STI 424: INTEGRATED SCIENCE PRACTICALS (PHYSICS) **2 Units**

Specialist laboratory practical's covering activities in STAN's NISP 1, 2, 3 (physics).

B.SC (ED) IN ECONOMICS

Year One

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 105	Use of English	C	2
GST 102	Introduction to Philosophy and Logic	C	2
FED 121	General Principles of teaching	C	2
ECN 131	Introductory Economics I	C	3
ECN 132	Introductory Statistical methods	C	3
ECN 133	Introductory Mathematics for Economics	C	3
ECN 142	Introduction to Nigerian Economy	C	3
ASE 144	Teaching Financial Accounting	C	2
ASE 131	Economics of Education I	C	2
SOC 111	Introduction to Sociology	E	3
POL 122	Organization of Government: The Citizen and the State	E	2
TOTAL UNITS OF COMPULSORY COURSES			**22**
TOTAL UNITS OF ELECTIVE COURSES			**5**

Year Two

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 201	General African Studies	C	2
GST 214	Basic Computer Concept	C	2
FED 212	Foundations of Education	C	2
FED 213	Introduction to Educational Psychology	C	2

FED 242	Elements of Special Education	C	2
ECN 231	Principles of Micro- Economics	C	3
ECN 141	Introductory Economics II	C	3
ECN 236	Statistical Methods and Application	C	2
ECN 233	Mathematics for Economics I	C	3
ASE 142	Economics of Education II	C	2
ECN 246	Elements of Financial Accounting	C	3
BUS 251	Principles and practice of management	E	3
FIN 244	Introduction to Money and Banking	E	2
TOTAL UNITS OF COMPULSORY COURSES			**25**
TOTAL UNITS OF ELECTIVE COURSES			**5**

Year Three

COURSE CODE	**COURSE TITLE**	**STATUS**	**UNITS**
FED 314	Introduction to Educational Technology and ICT	C	2
FED 313	Measurement and Evaluation	C	2
FED 321	Research Methods and Statistics	C	2
FED 311	Basic Principles of Curriculum Development and Instruction	C	2
FED 315	Teaching Practice I	C	3
ASE 225	Teaching Social Studies at JSS	C	2
ECN 241	Principles of Macroeconomics	C	3
ASE 331	Education and Human capital development	C	2
ECN 331	Micro-Economic theory	C	3
ECN 243	Applied Economics	C	3
ECN 332	Mathematics for Economics II	C	3
ECN 339	Introduction to Monetary Economics	E	2
ECN 334	Introduction to Econometrics	E	2
TOTAL UNITS OF COMPULSORY COURSES			27
TOTAL UNITS OF ELECTIVE COURSES			4

Year Four

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 307	Entrepreneurship and Corporate Governance	C	2
ECN 451	Advanced Micro- Economics	C	3
ASE 438	Teaching Financial Management	C	2
ASE 360	Teaching Economics in SSS	C	2
FED 414	Teaching Practice II	C	3
ECN 423	Research Methods in Economics	C	3
ECN 412	Economic Statistics	C	2
ECN 429	Industrial Economics I	C	2
ECN 431	Advanced Mathematical Economics	E	2
ECN 440	Health Economics	E	2
ECN 465	Advanced Population Economics	E	2
TOTAL UNITS OF COMPULSORY COURSES			19
TOTAL UNITS OF ELECTIVE COURSES			6

Year Five

COURSE CODE	COURSE TITLE	STATUS	UNITS
FED 413	Introduction to Educational Management	C	2
FED 423	Guidance and Counselling for Teachers	C	2
FED 488	Project	C	3
ECN 342	Macro-Economic theory	C	3
ECN 461	Advanced Macro-Economics	C	3
ASE 446	Curriculum in Economics	C	2
EDF 417	Continuous Assessment and Guidance Tools	E	2
ECN 454	Economics of Production	E	2
ECN 444	Natural Resources Economics	E	2
ECN 467	Advanced Labour Economics	E	2
TOTAL UNITS OF COMPULSORY COURSES			15
TOTAL UNITS OF ELECTIVE COURSES			8

COURSES DESCRIPTION
YEAR ONE

FSC 113: Introduction to Computer Science 3 units
Hardware: functional components. Software. System application packages. Program development. Flowcharting. Program objects. Basic programming. Computer application areas and technological trends.

GST 105: Use of English 2 Units
Use of English is compulsory for all first year undergraduate students at this university. It is designed to enable them to master two major skills: speaking and writing. More specifically, the course is designed to enable all fresh students to learn to speak English at normal conversational speed; to speak fluently on a wide range of topics; to understand materials written in English and to write clear, logical and generally acceptable English irrespective of the student's discipline.

GST 102: Introduction to Philosophy and Logic 2 Units
A brief survey of the main branches of Philosophy, Symbolic Logic; Special Symbolism, symbolic logic-conjunction, Negation, Affirmation, Disjunction Equivalence and conditional. Statement, Laws of thought, bio-conditionals Qualification Theory.

GST 103: Nigerian People and Culture 2 Units
Study of Nigerian History and in pre-colonial times. Cultural areas of Nigeria and their characteristics. Evolution of Nigeria as a political unit. Ethical foundation of the Nigerian society, Norms and values, Environmental Sanitation etc.

FED 121: General Principles of Teaching 2 Units
This course exposes student-teachers with the concepts of profession, principles of teaching professions, and rudiments of teaching and learning. It emphasizes on types of teaching activities for selecting and stating objectives, lesson planning units, modules and daily lesson plan. It further exposes pre-service teachers to all aspects of teaching and class management before embarking on teaching practice. Students are also introduced to the various attributes and characteristics of the teaching profession, while equipping students with the essential qualities and multiple roles of a good and effective teacher.

ECN 111: Introductory Economics I 3 Units
This course covers derivative and uses of derivatives in mathematics and Economics; calculus of multivariable functions in economics; Lagrange multiplier and constrained optimization in economics; exponential and logarithmic functions in Economics; fundamentals of linear (of matrix) algebra; Matrix inversion.

ECN 112: Introductory Statistic Methods 3 Units

Further exposure to the nature and scope of statistics and its role in social science research; basic concepts- discrete and continuous variables, constants, number accuracy and approximation, Population and samples; types of sampling; collection of data; tabular and diagrammatic presentation of data; location and variation, Measures of central tendency

ECN 113: Introductory Mathematics for Economists 3Units

Students will be exposed more to set theory; relations and algebraic operations and economic applications of various types of algebraic functions; series and sequences and their applications in economics; Matrix Algebra and special matrices; introduction to calculus of algebraic functions of single variable with applications to marginal analysis and optimization in Economics.

ECN 122: Introductory Mathematics for Economics 3Units

Set theory; relations and algebraic operations and economic applications of various types of algebraic functions; series and sequences and their applications in economics; Matrix Algebra and special matrices; introduction to calculus of algebraic functions of single variable with applications to marginal analysis and optimization in Economics.

ASE 144: Teaching Financial Accounting 2Units

This course is designed to prepare the students for the teaching of financial, economic terms and principles necessary to solve economic problems and make decisions. The course reviews the contents of the subjects to variety of teaching methods and materials for the teaching of the course. Lesson planning and the problems of teaching the course are also emphasized.

ASE 131: Economics of Education 2 Units

General conceptualization of economics of education. Symbiotic relationship between education and economics. Education, economic growth and National Development. Education, consumption, cost benefit analysis in education. Methodological problems of cost benefit analysis in education. Computation of gains from education efficiency and wastage in education. Demand and supply in Education.

SOC 111: Introduction to Sociology 2 Units

A study of the component of a larger society as well as the interdependence of the larger society.

YEAR TWO

GST 201: General African Studies I **2 Units**

Early African Cultures and Traditions

The cultural evolution of the man in Africa: the different ages, iron technology and agricultural development, writing and other forms of civilization in pre-colonial Africa: The Nok, Zimbabwe civilization, Ancient Senegalese cultures, different forms of governance and on-centralised political structure, the status and roles of women in ancient African societies.

Early Women African States, different kingdoms and empires; their rise and fall, different economic, social and political institutions in some ancient West African States like Tukar, Ghana, Mali, Songhai, Kanem Bornu, Benin, Yoruba, Igbo etc. Indigenous technology and trade; domestic and trans-Sahara.

Colonialism and its impacts on African Development

Modes and methods of colonialism; imperialism and warfare technology; trade treaties, the effective use of missionaries and colonial "officials". African resistance against colonialism: The role of women: The slave trade, the role of the educated "elites". African indigenous religious vis-à-vis the introduction of Islam and Christianity. Negative and positive effects of imperialism and external trade with Europe and America.

GST 214: Basic Computer Concepts **2 units**

Introduction to computer systems, input and output Devices, Central Processing Unit and Storage Devices, Introduction to windows operating system, Introduction to word processing software, creating and saving of document, formatting documents, creating and editing tables, Advanced word processing features, Introduction to spread sheet, Data base management, Introduction to electronic communication and the internet.

FED 212: Foundations of Education **2 Units**

The course deals with an overview of origin and development of Education in West Africa, adult psychology, sociology and physiology, the issue of rapid change, knowledge explosion and obsolescence.

FED 213: Human Learning: Educational Psychology **1 Unit**

Definition of Psychology, education, learning; Relevance of Psychology in teacher education; Difference between teaching and learning; Factors affecting learning: Environmental; Psychological; Neurophysiologic basis for learning; Emotion, attitude, interest, values and learning; Teacher-factor and learning; the underachiever; Remembering and forgetting; Techniques of effective study; Examination preparation and taking; Case studies.

FED 222: Elements of Special Education **2 Units**

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

ECN 211: Principles of Micro-economics 3 units

Scope and methodology of economic systems; Demand and supply analysis; Consumer demand, Revenue and elasticity of demand; Cobb-web model; Consumer behavior (Cardinal and Ordinal approach); Theory of production; Theory of cost, pricing, and output determination under the market systems; Theory of distribution; General equilibrium theory; Introduction to mathematical general equilibrium theory; Operation of factor markets, Money and banking.

ECN 121: Introductory Economics II 3 Units

This course is intended to review and carry out a more advanced treatment of topics covered at the 100 level, namely; derivatives and uses of derivatives in mathematics and Economics; calculus of multivariable functions in economics; Lagrange multiplier and constrained optimization in economics; exponential and logarithmic functions in Economics; fundamentals of linear (of matrix) algebra; Matrix inversion.

ECN 213: Statistical Methods and Applications 2 Units

Probability and probability distributions; sampling and significance tests- sample spaces, sampling with and without replacement, one and two tailed tests; small sampling theory and student distribution; correlation and regression; index numbers; chi square distribution; fitting methods of least squares; time series analysis; ANOVA and F statistics. Questionnaire design, Coding questionnaire, Data cleaning, Descriptive statistics, Chi-Square, t test and ANOVA, binary, ordered and multinomial logit/probit. Setting up a pool work file and working with pooled data, Factor analysis and principal components analysis

ECN 212: Mathematics for Economists I 3 Units

Introduction: The Nature of Mathematical Economics; Economic Models; Static (or equilibrium) analysis; Equilibrium Analysis in Economics; Linear Models and Matrix algebra; Linear Models and Matrix Algebra; Comparative statics and the concept of derivative; Rules of differentiation and their use in Comparative Statics; comparative-static analysis of general-Function models; Optimization problems; Optimization: A special variety of equilibrium analysis; exponential and logarithmic functions; the case of more than one

choice variable; Optimization with equality constraints; Further Topics in Optimization; Economic dynamics and integral calculus; Continuous time: First-Order differential equations; Higher-Order differential equations; Discrete Time: First-Order Difference Equations; Higher-Order Difference Equations; Simultaneous Differential Equations and Difference Equations; Optimal Control Theory.

ASE 242: Economics of Education II 2 Units

Further understanding of general conceptualization of economics of education. Symbiotic relationship between education and economics. Education, economic growth and National Development. Education, consumption, cost benefit analysis in education. Methodological problems of cost benefit analysis in education. Computation of gains from education efficiency and wastage in education. Demand and supply in Education. Year1

BUS 211: Principles and Practice of Management 3 Units

The field of business administration: Concepts of management, manager, authority, responsibility, accountability and administration. Organic business function: What managers and top administrators do in organisation? Managing the total organisation using the system approach; Organisation as open social systems: Example of manufacturing, services and agricultural business units as systems of inputs, transformation processes, outputs and feedback.

The management process: The functions performed by managers in organization, their rationale, and their limits on controlling business activities and behaviour. Setting objectives: planning organizing resources, controlling and co-coordinating activities, directing innovating, motivating personnel. Staffing; providing leadership by reducing or preventing uncertainty. Making decisions: Management knowledge, skills and behavioural styles in Nigeria management techniques observable in Nigerian organisations. New concepts of management that may be applied in Nigeria; measuring the performance of organisation; Making changes in existing prostates and business establishment in Nigeria.

FIN 221: Introduction to Money and Banking 2 Units

The concept of Entrepreneurship, types and Nature of Business Organization i.e. Sole proprietorship etc. sources of Capital for funding business e.g. loans, Business and External Environment, social responsibility of Business, location and localization of industries and factors affecting it, Management of small-scale industry.

YEAR THREE

FED 314: Introduction to Educational Technology and ICT 2 Units

The concept, application and psychological foundations of educational technology. Educational media. Teaching methods and techniques. Community resources for teaching and learning processes. Systems approach to instruction. Programmed instruction. Computer in education and practicals.

FED 313: Measurement and Evaluation 2 Units

Evaluation in the teaching process. Different techniques of evaluation: objective, essay, oral, performance and non-testing devices. Experience in test construction, administration, scoring, analysis and interpretation.

FED 322: Research Methods and Statistics 2 Units

The purpose of this course is to develop in the student the requisite skills for conducting and reporting research in Education. Topics discussed include overview of research process. General framework for developing research. Types of research design. Literature review, Populations, Samples, Research instruments. At the end of the courses the students will be required to write a proposal, preparing and starting them with writing their project.

FED 311: Basic Principles of Curriculum Development and Instruction 2 Units

The course presents basic concepts and principles of curriculum, curriculum development, instruction, and the relationship between curriculum and curriculum instruction. It further exposes the students to the various selected theories and models of curriculum development, basic principles of content selection and objective formulations, applications to school subjects with particular reference to the National Policy on Education and other ways of pursuing curriculum improvements in the schools.

FED 315: Teaching Practice I 3 Units

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

ASB 305: Teaching Social Studies in JSS 2 Units

The course is designed to equip students with appropriate teaching methods and materials for teaching Social-Studies.

ECN 322: Statistical Methods and Application 2 Units

Probability and probability distributions; sampling and significance tests- sample spaces, sampling with and without replacement, one and two tailed tests; small sampling theory and student distribution; correlation and regression; index numbers; chi square distribution; fitting methods of least squares; time series analysis; ANOVA and F statistics. Questionnaire design, Coding questionnaire, Data cleaning, Descriptive

statistics, Chi-Square, t test and ANOVA, binary, ordered and multinomial logit/probit. Setting up a pool work-file and working with pooled data, Factor analysis and principal components analysis

ECN 312: Mathematics for Economics II **3 Units**

Introduction: The Nature of Mathematical Economics; Economic Models; Static (or equilibrium) analysis; Equilibrium Analysis in Economics; Linear Models and Matrix algebra; Linear Models and Matrix Algebra; Comparative statics and the concept of derivative; Rules of differentiation and their use in Comparative Statics; comparative-static analysis of general-Function models; Optimization problems; Optimization: A special variety of equilibrium analysis; exponential and logarithmic functions; the case of more than one choice variable; Optimization with equality constraints; Further Topics in Optimization; Economic dynamics and integral calculus; Continuous time: First-Order differential equations; Higher-Order differential equations; Discrete Time: First-Order Difference Equations; Higher-Order Difference Equations; Simultaneous Differential Equations and Difference Equations; Optimal Control Theory

ECN 327: Introduction to Population Economics **2 Units**

Introduction of the history of population. Theories and empirical evidence for the demographic transition, the transition from high–mortality and fertility to low–mortality and fertility. Population transition - the movement from a traditional to modern economy and is thus associated with the Industrial Revolution. Robert Malthus equilibrium model and framework on population dynamics. Effects of population aging; relationship between population growth and the environment. The economic determinants of population change and demographic behavior including household formation, marriage, child bearing and rearing, mortality (and especially infant mortality) and key forms of human capital investment including schooling and migration. Application of analytical tools of economics to investigate various economic and social consequences of population change, such as the economic impact of immigrants on workers, consumers, and taxpayers; population aging and the fiscal solvency of public pensions; consequences of below replacement fertility and the likely effect of governments upsides to stimulate fertility. Tools of micro and macroeconomic analysis will be used in the course.

ECN 311: Micro-Economics Theory **3 Units**

More advanced and mathematical treatment of micro-economic theory with incorporation of linear programming advanced price and output determination under perfect competition,
oligopoly, monopoly; exchange theory, offer curves, and contract curves; introduction to capital theory and types of production functions

ECN 314 Introduction to Econometrics 2 Units

This course teaches more on multiple regression analysis, interpretations and applications in various fields.

YEAR FOUR

GST 407: Entrepreneurship and Corporate Governance 2 Units

Principles and concepts in Corporate Governance.

ECN 411: Advanced Micro-economics 3 Units

This course builds on the intermediate microeconomics that the students were exposed to into in the preceding session, the topic includes the following: Introduction: the role of theory; the theory of consumer behaviour; topics in consumer behaviour; the theory of firms; production functions and their properties; CES production function and duality in production; market equilibrium; monopoly, monophony & monopolistic competition; duopoly, oligopoly and bilateral monopoly; multimarket equilibrium; welfare economics: Pareto optimality and efficiency of perfect competition.

ASE 431: Teaching Financial Management 2 Units

This course focuses on various sources and uses of finance. It teaches various financial decisions, financial analysis and general financial management in educational system

ECN 423: Problems of Nigerian Economy 2 Units

This course is a seminar course. The course surveys the current economic issues and discusses various approaches to deal with them. It aims at exposing students to critical thinking and group discussions on economic issues. The students present seminar papers at the end the course.

ASE 424: Teaching Economics in SSS 2 Units

This course focuses on the methods, aims and objectives, lesson planning, the use of instructional materials and problems of teaching Economics.

FED 414: Teaching Practice II 3 Units

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

ECN 323: Research Methods in Economics 3 Units

The course exposes students to various analytical tools such as SPSS, E- views etc. in economics. Relevant skills are developed through sample data.

ECN 311: Microeconomic Theory 3 Units

Emphasis will be on theories of Consumption, Investment and Savings, Demand and Supply of Money, Financial Institutions, and Monetary Politics, General Equilibrium Analysis of the Product and Money markets, and the complementarily of fiscal and monetary policies, International Income Transmission and impact on the General Equilibrium, Inflation and Employment, Growth Models and Macroeconomics policies,

ECN 319: Industrial Economics I 2 Units

Scope, methodology of industrial economics, industrial structure, definitions, problems and measurement theories of the firm; the growth of the firm, diversification in mergers and innovation, investment economics, risk, and uncertainty, the cost of capital, sources of finance, industrial pricing and marketing, pricing and marketing public goods, government intervention in industry and public policy, industrial location; industrial practices and policies in Nigeria and factors of fixed investment demand.

ECN 431: Advanced Mathematics Economics 2 Units

Rigorous mathematical approach to microeconomic and macroeconomic analysis. Special attention will be placed to dynamic analysis of the market, consumer utility function and production functions at the micro level, while at the macro level, attention will be paid to computable general equilibrium analysis. Input-Output analysis and the accounting matrix. Economic application of numerical methods.

ECN 340: Health Economics 2 Units

Why health economics- important aspect of health care economics, how markets interrelate in medical care and health insurance; utility and health- the production of health, health through life cycle, a model of consumption and health; the transformation of medical care to health; demand for medical care- conceptual framework; empirical studies of medical care demand and applications; the physician and physician firm; physician in the market place-location decision and consumer search and market equilibrium; the hospital as a supplier of medical care; hospitals in the market place; the demand for health insurance; health insurance supply and managed care; government provision of health insurance; externalities in health and medical care; managing the market: regulation, quality certification and technical change; universal insurance issues and international comparisons of health care systems

YEAR FIVE

FED 424: Guidance & Counseling for Teachers 2 Units

Explanation of the meaning, history and objectives. Basic principles and techniques of guidance and counselling. Interaction with learners. Need for guidance and counselling. Educational, vocational and personal-social guidance and counselling. Individual and group guidance and counselling. Characteristics of a professional counsellor. Guidance services in schools. Other school personnel and the guidance programs.

FED 588: Project **3 Units**

An individual original study of a relevant problem or topic in Early Childhood care and Education. Students should demonstrate competence in the techniques of research in the discipline.

ECN 321: Macroeconomic Theory **3 Units**

An advanced treatment of topics in ECN 221. Emphasis will be on theories of Consumption, Investment and Savings, Demand and Supply of Money, Financial Institutions, and Monetary Politics, General Equilibrium Analysis of the Product and Money markets, and the complementarily of fiscal and monetary policies, International Income Transmission and impact on the General Equilibrium, Inflation and Employment, Growth Models and Macroeconomics policies,

ECN 425: Population and Development **2 Units**

Concept of population of growth, measurement of population structure and consequences of population explosion; relationship between population structure and development; per capita income and economic welfare; methods of population control and implication on developments; sustainable development and population; inclusive growth measurement and population dynamics. international migration and developing countries.

ASE 322: Econometric methods for Education II **2 Units**

Definition and methodology of Econometrics. The simple linear regression analysis. The concepts of auto-correlation, multi-collinearity and errors in variables. Interpretation of regression results.

ECN 421: Advanced Macro-Economics **3 Units**

An advanced treatment of IS-LM model with extensions to and special emphasis on the following: macroeconomic policies: tracking the macro economy and the current macroeconomic situation; the theory of economic growth; potential output and real wages, domestic spending and international trade; full employment equilibrium, the sticky-price income-expenditure framework: expectations and monetary policy; macroeconomic

stabilization policy: fiscal policy institutions, powers and limits of stabilization policies, monetary versus fiscal policy and making good stabilization policy: rules versus authorities; international economic policy; changes in the macro-economy and changes in macroeconomic policy.

ASE 446: Curriculum in Economics **2 Units**

Discussion of Curriculum in Economics, trends in Curriculum

ECN 328: Trade Policy **2 units**

ECN 425: Economics of Production **2 Units**

Introduction to production process, production and process analysis, factory layout, production scheduling, job design, workforce management, production planning and inventory, network analysis, project management facilities planning and management of technology

ECN 412: Development Economics **3 Units**

Definition of development planning and policy and pre-requisite for successful development planning; pattern of planning and plan strategy; interdependence, foreign trade, capital intensity and regional balance; evaluation of economic performance; the arithmetic of planning: the plan period, the rate of growth, projecting financial resources, overall commodity balance, industrial balances, linear programming and the capital budget; the planning process: agency of planning, federal planning, preparing projects, the annual plan and private sector.

EDF 517: Continuous Assessment and Guidance Tools 2 **2 Units**

Nature and Role of Continuous Assessment; Diagnostic and Prescriptive Management in Teaching and Learning situation; Cumulative record-keeping for Guidance and Counselling; Review of achievement test construction techniques

ECN 427: Advanced Labour Economics **2 Units**

Labor supply, worker mobility and migration. Investment in human capital education and training, wage determination etc.

B.SC (HONS) IN BUSINESS EDUCATION

Year One

COURSE CODE	COURSE TITLE	STATUS	UNITS
ASE 160	Word Processing I	C	3
GST 105	Use of English	C	2
FED 121	General Principles of Teaching	C	2
IRP 120	Elements of Human Resource Management	C	2
GST 102	Introduction to Philosophy and Logic	C	2
BUS 121	Elements of Marketing	C	2
ACC 111	Introduction to Accounting	C	2
ASE 150	Intro. to Keyboarding & Word Processing	C	2
ASE 151	Record Keeping and Management	C	2
ASE 162	Office Administration and Management	C	2
ECN 111	Introductory Economics I	C	3
BUS 120	Introduction to Management	E	2
FBA 110	Algebra for Business Students	E	2
TOTAL UNITS OF COMPULSORY COURSES			**24**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Two

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 201	General African Studies I	C	2
FED 212	Foundation of Education	C	2
FED 213	Introduction to Educational Psychology	C	2
FED 222	Elements of Special Education	C	2
GST 214	Basic Computer Studies or Concepts	C	2
FBA 223	Business Communication	C	2
ASE 261	Business Career Education	C	2
BUS 211	Principles and Practice of Management	C	3
ASE 250	Information and Media Management	C	2
ACC 211	Principles of Financial Accounting	C	3
ECN 221	Introductory Economics II	C	3
ACC 221	Elements of Cost Accounting	C	2
ASE 260	Networking Application for Business	C	2
ASE 251	Retail and Wholesale Management	E	2
ASE 263	Principles of Advertising and Promotion	E	2
TOTAL UNITS OF COMPULSORY COURSES			**29**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Tree

COURSE CODE	COURSE TITLE	STATUS	UNITS
FED 313	Measurement and Evaluation	C	2
FED 314	Introduction to Education Technology and ICT	C	2
FED 311	Basic Principles of Curriculum Development and Instruction	C	2
CIL 313	Business Law	C	3
ASE 361	Teaching Business Studies in JSS	C	2
FED 315	Teaching Practice I	C	3
ASE 350	Word Processing II	C	2
ASE 362	Fundamentals of Business Education	C	2
BUS 322	Introduction to Entrepreneurship	C	3

SIW 300	SIWES (Vacation Programme)	C	6
BUS 321	Management and Business Environment	E	3
ACC 311	Financial Accounting	E	3
TOTAL UNITS OF COMPULSORY COURSES			**27**
TOTAL UNITS OF ELECTIVE COURSES			**6**

Year Four

COURSE CODE	**COURSE TITLE**	**STATUS**	**UNITS**
GST 307	Entrepreneurship & Corporate Governance	C	2
FED 414	Teaching Practice II	C	3
ASE 470	Curriculum in Business Studies	C	2
ASE 452	Consumer Global Market (E-Commerce)	C	2
ASE 453	Secretariat Practice	C	2
FBA 411	Business Information Technology	C	2
BUS 413	Management of Small-Medium Scale Enterprises	C	3
FBA 412	Business Policy and Strategic Management	C	2
ACC 412	Taxation I	E	2
ACC 411	Advanced Financial Accounting I	E	3
TOTAL UNITS OF COMPULSORY COURSES			**20**
TOTAL UNITS OF ELECTIVE COURSES			**5**

Year Five

COURSE CODE	COURSE TITLE	STATUS	UNITS
FED 488	Research Project	C	3
FED 413	Introduction to Educational Management	C	2
FED 423	Guidance and Counseling for Teachers	C	2
ASE 362	Teaching Accounting in SSS	C	2
ASE 462	Law and Practice of Meetings	C	2
BUS 326	Project Management	C	2
FBA 429	International Business	C	2
BUS 441	Entrepreneurial Development	C	2
FIN 341	International Trade and Finance	E	2
BUS 431	Business Ethics and Corporate governance	E	3
TOTAL UNITS OF COMPULSORY COURSES			**15**
TOTAL UNITS OF ELECTIVE COURSES			**5**

COURSES DESCRIPTION

YEAR ONE

FSC 113: Introductory Computer Science **3 units**

Hardware: functional components. Software. System application packages. Program development. Flowcharting. Program objects. Basic programming. Computer application areas and technological trends.

GST 105: Use of English **2 Units**

Use of English is compulsory for all first year undergraduate students at this university. It is designed to enable them to master two major skills: speaking and writing. More specifically, the course is designed to enable all fresh students to learn to speak English at normal conversational speed; to speak fluently on a wide range of topics; to understand materials written in English and to write clear, logical and generally acceptable English irrespective of the student's discipline.

FED 121: General Principles of Teaching **2 Units**

The course exposes student-teachers to the concepts of profession, principles of the teaching profession, and the rudiments of teaching and learning. It emphasizes the types

of teaching activities for selecting and stating objectives, lesson planning units, modules and daily lesson plan. It further exposes pre-service teachers to all aspects of teaching and class management before embarking on teaching practice. Students are also introduced to various attributes and characteristics of the teaching profession, while equipping students with the essential qualities and multiple roles of a good and effective teacher.

GST 103: Nigerian People and Culture 2 Units

Study of Nigerian History and in pre-colonial times. Cultural areas of Nigeria and their characteristics. Evolution of Nigeria as a political unit. Ethical foundation of the Nigerian society, Norms and values, Environmental Sanitation etc.

GST 102 Introduction to Philosophy and Logic 2 Units

A brief survey of the main branches of Philosophy, Symbolic Logic; Special Symbolism, symbolic logic-conjunction, Negation, Affirmation, Disjunction Equivalence and conditional. Statement, Laws of thought, bio-conditionals Qualification Theory.

BUS 121: Elements of Marketing 2 Units

The course will cover meaning, role and relevance of marketing in business functions, classification of goods and services. The four P's in marketing, channels and institutional physical distribution, concept of marketing, advertising, sales promotion and distinction between marketing and selling.

ACC 111: Introduction to Financial Accounting 2 Units

Evolution to bookkeeping, subsidiary books and methods of keeping them, the ledger and its classification, principles of double entry, trial balance, bank reconciliation statement, preparation of simple trading profit and loss account.

ASE 150: Introduction to Keyboarding and Word Processing 2 Units

The course is designed for those who have had little or no previous instruction on a computer.In the beginning semester keyboarding course, the student will master touch operation on a computer keyboard. In this introductory course, students learn basic word processing skills suchas editing and proofreading documents, performing standard file management procedures, keyboarding, and creating applicable business documents to simulate a real-life job environment. Students will use basic word processing functions on a variety of document types.

ASE 151 Records Keeping and Management 2 Units

Definition and types of records. Records handling in the office. Understand the information processing and record cycle. Staff records, leakage and the secretary. Need

for staff records. Guides to security of official documents in the office. Record retention programme. Know the importance of security in records management. Electronic filing or computerized filing systems and equipment. File management. Methods and types of office filing systems.

ASE 162: Office Administration and Management 2 Units

This course is designed to introduce the student-teacher with the basic knowledge of office, structure, official mail, postal, services, communication in the office, report writing methods to payment, impress account control. Office machine and equipment, duplicating process and office supplies.

ECN 111: Introductory Economics I 3 Units

Nature and scope of Economics; the problems of economic theory; comparative economic systems (Capitalism, Socialism and Mixed Economy); Economic theory and economic policies; functions of economic system; basic tools of economic analysis; The elementary theory of demand and supply; Elasticity of demand and supply; the theory of consumer behaviour; the theory of production, the theory of cost; market structures; the theory of distribution.

BUS 120: Introduction to Management 3 Units

This course is intended to expose the student teacher to a comprehensive study of specific activities of merchandising and promotional functional required of managing a business

FBA 110: Algebra for Business Students 2 Units

Statistical Representation of Data (Frequency distribution, Histogram, Pie-chart.

1. Measures of Central Tendency and Dispersion (Mean, Median, Mode, Mean Deviation; Quartiles and Quartile Deviation; Standard Deviation; Coefficient of Variation, Coefficient of Quartile Deviation.
2. Correlation and Regression (Scatter diagram, Coefficient of Correlation, Rank Correlation, Regression lines, equations and coefficients.
3. Index Numbers, Uses and Methods of construction.
4. Time Series Analysis (basic application including moving average; Method of Least Squares.
5. Probability (Independent and dependent events; mutually exclusive events.
6. Theoretical Distribution (Binomial Distribution, Poisson distribution and basic application; Normal distribution and application).

ACC 120: Introduction to Cost Accounting 2 Units

Further understanding of evolution to bookkeeping, subsidiary books and methods of keeping them, the ledger and its classification, principles of double entry, trial balance, bank reconciliation statement, preparation of simple trading profit and loss account.

YEAR TWO

GST 201: General African Studies I **2 Units**

Early African Cultures and Traditions

The cultural evolution of the man in Africa: the different ages, iron technology and agricultural development, writing and other forms of civilization in pre-colonial Africa: The Nok, Zimbabwe civilization, Ancient Senegalese cultures, different forms of governance and on-centralized political structure, the status and roles of women in ancient African societies.

Early Women African States, different kingdoms and empires; their rise and fall, different economic, social and political institutions in some ancient West African States like Tukar, Ghana, Mali, Songhai, Kanem Bornu, Benin, Yoruba, Igbo e.t.c. Indigenous technology and trade; domestic and trans-Sahara.

FED 212: Foundations of Education **2Units**

The course deals with an overview of origin and development of Education in West Africa, adult psychology, sociology and physiology, the issue of rapid change, knowledge explosion and obsolescence.

FED 213: Human Learning : Psychology of Education **1 Unit**

Definition of Psychology, education, learning; Relevance of Psychology in teacher education; Difference between teaching and learning; Factors affecting learning: Environmental; Psychological; Neurophysiologic basis for learning; Emotion, attitude, interest, values and learning; Teacher-factor and learning; the underachiever; Remembering and forgetting; Techniques of effective study; Examination preparation and taking; Case studies.

FED 222: Elements of Special Education **2 Units**

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

GST 214: Basic Computer Concepts **2 units**

Introduction to computer systems, input and output Devices, Central processing Unit and storage Devices, Introduction to windows operating system, Introduction to word processing software, creating and saving of document, formatting documents, creating and editing

tables, Advanced word processing features, Introduction to spread sheet, Data base management, Introduction to electronic communication and the internet.

ASE 260: Word Processing I (35 wpm) 2 Units

This course is designed to equip the student-teacher with the basic techniques in keyboard mastery. It emphasizes on correct sitting and finger positions, techniques of inserting and removing paper from the machine and use of the backing sheet efficiently. Rule for line and division of words, and proper handling and maintenance of the typewriter are emphasized.

ASE 261: Business Career Education 2 Units

The concept of Entrepreneurship, types and Nature of Business Organization i.e. Sole proprietorship etc. sources of Capital for funding business e.g. loans, Business and External Environment, social responsibility of Business, location and localization of industries and factors affecting it, Management of small-scale industry.

BUS 211: Principles and Practice of Management 2 Units

The field of business administration: Concepts of management, manager, authority, responsibility, accountability and administration. Organic business function: What managers and top administrators do in organisation? Managing the total organisation using the system approach; Organisation as open social systems: Example of manufacturing, services and agricultural business units as systems of inputs, transformation processes, outputs and feedback.

The management process: The functions performed by managers in organization, their rationale, and their limits on controlling business activities and behaviour. Setting objectives: planning organizing resources, controlling and co-coordinating activities, directing innovating, motivating personnel. Staffing; providing leadership by reducing or preventing uncertainty. Making decisions: Management knowledge, skills and behavioural styles in Nigeria management techniques observable in Nigerian organisations. New concepts of management that may be applied in Nigeria; measuring the performance of organisation; Making changes in existing prostates and business establishment in Nigeria.

ASE 250 Information and Media Management 2 Units

Includes study of the criteria by which records are created, stored, retrieved, retained and disposed, as well as attention to study of the managerial consideration necessary for effective selection and utilization of office machines, equipment, procedures and personnel.

ACC 211: Principles of Financial Accounting 3 Units

The nature and scope of accounting; the role of accounting. The accounting function and its relationship with the information systems of organizations. General review of final accounts of sole proprietorship. Manufacturing, trading and profit and loss accounts and balance sheets of a sole trader. Accounting treatment of control accounts and bank reconciliation. Partnership Accounts: Formation, operation and preparation of final accounts. Incomplete records, accounts of clubs and societies. Company accounts: Introduction to company accounts; Simple final accounts.

ECN 221: Introductory Economics II 3 Units

Concepts of macro-economic; schools of macro-economic; thought accounting; the theory of national income determination-basic models; investment expenditures and income determination; government fiscal activities and income determination; production and employment sector; monetary sector- money supply.

ACC 221: Elements of Cost Accounting 2 Units

Element of cost accounting including calculations of economics order quantity (EQQ), cost methods, costing of job contracts, batch operation, products, process cost including by-products, and joint products, valuation and apportionment of joint cost. Treatment of scraps, wastes, normal losses, and gains. Process stock using FIFO, LIFO, etc. Reconciliation of financial and cost account records.

ASE 260: Network Application for Business 2 Units

This course is designed to train students how to identify and explain various types of Online services; Design and create web pages incorporating various file types (e.g text, image, sound and video); Describe and use various internet protocols (e.g., http, ftp, mails and tenet); Identify types of networks, their features and application; Select communication software appropriate for specific network tasks; Assess Web site content in terms of organizational and Federal and State laws; Develop and use application in support of e-business

ASE 251: Retail and Wholesale Management 2 Units

This course is designed to train the learners to understand the fundamentals of retail and wholesale management. Ways to categorize wholesalers' types of wholesalers, problems/challenges of wholesalers, management of retail business, management of wholesale business, channel of distribution, personal selling skills, key to successful distribution business, wholesale and retail management solutions and ways of attaining successful business.

ASE 263: Principles of Advertising & Promotion 2 Units

This course is designed to acquaint the student teacher with the concept of advertising and concept of sales promotion with particular reference to the definition, objectives,

types of advertising and sales promotion, consumer promotion tools, trade promotion tools, sales promotion strategies and practice, advertising industry and agency.

YEAR THREE

FED 313: Measurement and Evaluation 2 Units

Evaluation in the teaching process. Different techniques of evaluation: objective, essay, oral, performance and non-testing devices. Experience in test construction, administration, scoring, analysis and interpretation.

FED 301: Introduction to Educational Technology and ICT 2 Units

The concept, application and psychological foundations of educational technology. Educational media. Teaching methods and techniques. Community resources for teaching and learning processes. Systems approach to instruction. Programmed instruction. Computer in education and practicals.

FED 311: Basic Principles of Curriculum Development and Instruction 2 units

The course presents basic concepts and principles of curriculum, curriculum development, instruction, and the relationship between curriculum and curriculum instruction. It further exposes the students to the various selected theories and models of curriculum development, basic principles of content selection and objective formulations, applications to school subjects with particular reference to the National Policy on Education and other ways of pursuing curriculum improvements in the schools.

CIL 313: Business Law and Government Regulations 3 Units

The course is designed to develop in students-teacher an appreciation of the legal environment in which organization in general and the accounting legal environment operates and a working knowledge of the law of contract and its practical applications, The course includes introduction to law and meaning of business law, sources of Nigeria law, organization of Nigerian court's, law of contract, sales of goods, hire purchase, agency contract of employment, trades union and industrial relations, partnership, tort, bankruptcy and negotiable instruments.

ASE 361: Special Teaching Methods I: Teaching Business Studies in Junior Secondary Schools

2 Units

A subject-oriented class in which students are given instruction in the specific methods of
teaching in Business Studies.

FED 315: Teaching Practice I 3 units

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

FED 322: Research Methods and Statistics 2 Units

The purpose of this course is to develop in the student the requisite skills for conducting and reporting research in Education. Topics discussed include overview of research process. General framework for developing research. Types of research design. Literature review, Populations, Samples, Research instruments. At the end of the courses the students will be required to write a proposal, preparing and starting them with writing their project.

ASE 362: Fundamentals of Business Education 2 Units

The concept of Entrepreneurship, types and Nature of Business Organization i.e. Sole proprietorship etc. sources of Capital for funding business e.g. loans, Business and External Environment, social responsibility of Business, location and localization of industries and factors affecting it, Management of small-Scale industry.

BUS 322: Introduction to Entrepreneurship 3 Units

Understanding the entrepreneurial process. Entrepreneurship and Entrepreneurship. How entrepreneurship works in the developed and emerging markets, similarities & differences? Can intrapreneurship work in the medium size enterprise and large company? What are the financing, growth, and scale-up issues that face entrepreneurs and entrepreneurs?

SIW 300: SIWES (Vacation Programme) 6 Units

BUS 321: Management and Business Environment 3 Units

The concept and organisations business environment. The concept of interactions between organisations and relevant business environments. The environment of an organisation as a source of inputs, and as a repository for the outputs of organisation so Models of relationships between organisations and their environments. How to measure the major aspects of the environments of an organisation. Examples of classroom, department, faculty, university, community, state, and country, as general environments, for given business activities, The Nigerian business system in charts, facts, figures and general descriptions. The role of government in the business system. The factors affecting public and private organisations in Nigeria. The Laws, conventions, socio-cultural practices, beliefs, economic structure, financial, monetary, as well as budgetary policies of state and Federal Governments, affecting organisations. The Fourth National Development Plan and business activities in Nigeria. The ECOWAS as an extension of the environment of businesses

in West Africa. How to manage the interface between given organisations and their relevant environments. Current developments in the Nigerian business environment. Developing awareness of how given variables in the Nigerian business environment affect organisational success and failure. Business and management strategy formation as a way of dealing with future changes in the environment. Techniques of forecasting trends and changes in the environment of organisation.

YEAR FOUR

GST 407: Entrepreneurship and Corporate Governance 2 Units
Principles and concepts in Corporate Governance.

FED 414: Teaching Practice II 3 Units
Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

ASE 450: Curriculum in Business Studies 2 Units
This course reviews the elements of secondary school curriculum with particular reference to the objectives, content, learning activities, teaching aids as well as evaluation techniques. Identification and examination of some contemporary issues confronting business education in Nigeria.

ASE 451: Word Processing II 2 Units
This course will focus on the development of proficiency on various software applications; in-depth practice in the use of Microsoft office professional applications (Word, PowerPoint, Excel, PowerPoint and Publisher will be achieved through various activities. Students will gain proficiency in the creation of Web documents. (Practical)

ASE 452: Consumer Global Market (E-Commerce) 2 Units
The course is designed to help students' master skills in the design and construction of complex web sites for conducting business electronically. Emphasis is on skill development in advanced Webpage construction and entrepreneurial applications of conducting business electronically as well as economic, social, legal and ethical issues related to electronic business. Students will plan, design, create, publish, maintain and promote an electronic business website.

ASE 453: Secretarial Practice 2 Units
This course is designed to acquaint the student teacher with the basic functions of the office secretary in an organization. The course focuses on the functions, quality, and qualification for secretary ship, records management, itinerary, sources, of information and pub lie relations duties.

BUS 413: Management of Small-Medium Scale Enterprises 3 Units

The vital role SMEs play in the growth of a nation's economy. The entrepreneurial thinking of students as well as the motivation to start ventures in an economy where there is a high rate of unemployment. The integration and application of knowledge and

skills acquired from other functional areas of business education towards managing SMEs successfully. The nature of the activities, financing, developing and managing a successful SME. Organisation of SMEs; operation of the small-scale retail, trading; service or manufacturing business. Location problem, Problems relating to stock control, insurance and multiple taxes.

FBA 412: Business Policy and Strategic Management 2 Units

Concept of strategy in relation to business, corporation, and management. Ideas of linkage between organizations and their relevant environments as the basis of strategy formulation and implementation Concept of policies, decision-making, business objectives, performance criteria, structure, and managerial behavior. The major criteria, structure, and managerial behavior. The major contribution of courses in Finance, Accounting, Insurance, Economics, Behavioural sciences, and Management of Business policy and decision-making. Practice in calculating simple financial and economic indices from business data and their accounting information. Learning the behavioural implications of courses of action that are considered rational on the basis of financial and economic indices computer. Emphasis of course as forum for using all salient ideas gained from other course in the undergraduate programmes. The strategy framework. Example of basic corporate objectives. Factors in the business environment of specific firms in Nigeria. Analyzing a firm's opportunities and threats, strengths and weaknesses. Selection strategies and structure. Deriving and strategies and policy structures, of public limited liability companies from their published annual reports. Developing the skills of student in developing clear business objectives, writing clear strategies and policies, and presenting structure that are capable of helping, in implement chosen strategies.

ACC 412: Taxation I 2 Units

Principles of taxation structure and procedures returns, assessment, objectives, appeal, payment and recovery of taxation functions of board. Law and practice of income tax relating to individuals, personal allowance, nature and computations, Partnership: admission and dissolution.

ACC 411: Advanced Financial Accounting I 3 Units

Company Accounts: Formation, Issue and redemption of shares and debentures, final accounts, merging, amalgamation, absorption, etc, including statutory requirements of company accounts in respect of each area. Advanced partnership accounts: Admission, retirement, dissolution, change of interest, conversion of partnership to limited companies, amalgamation of partnerships. Departmental and Branch Accounts (Home and

Foreign Branches). Introduction to interpretation of accounts for financial statement analysis – funds flow statement.

YEAR FIVE

FED 588: Project **3 Units**

An individual original study of a relevant problem or topic in Early Childhood care and Education. Students should demonstrate competence in the techniques of research in the discipline.

FED 523: Guidance and Counselling for Teachers **2 Units**

Explanation of the meaning, history and objectives. Basic principles and techniques of guidance and counselling. Interaction with learners. Need for guidance and counselling. Educational, vocational and personal-social guidance and counselling. Individual and group guidance and counselling. Characteristics of a professional counsellor. Guidance services in schools. Other school personnel and the guidance programmes.

ASE 562: Special Methods II: Teaching Accounting in SSS **2 Units**

The history and development of accounting instruction and materials, aims and objectives in light of current trends. Textbook selection, lesson planning, classroom procedures, tests and measurements, audio-visual and other teaching aids are discussed. This course include Special methods of teaching basis business subjects; special methods of teaching the skill subjects; special methods of teaching vocational business (non-skill) subjects (basic business subjects, bookkeeping, data/word processing, & distributive subjects); extending learning beyond the classroom (cooperative part-time business education programmes, adult programmes in business education & business student organizations); induction/in-service training and workshops organization and management.

ASE 563: Law and Practice of Meeting **2 Units**

Definition of meeting; Types and essentials of a valid meeting; Appointment and duties of a Chairman; Conduct of meetings: motions and voting; Resolution and minutes; Defamatory statements and defenses; Illegal assemblies; Constitution of a Company; Local Government meetings; Machinery of Government; The Judiciary.

BUS 521: Project Management **2 Units**

Concepts of project management, the role of the project manager, Planning the project,Developing a mission, vision, goals and objectives for the project, Scheduling project work, Project control and evaluation, Managing the project team.

BUS 521: Entrepreneurial Development 2 Units

Entrepreneurs and entrepreneurial opportunities; Analyzing customer groups and developing a plan to identify, reaching and keeping customers in a specific target market; Applying economic concepts when making decisions for an entrepreneurial venture; Using the financial competencies needed by an entrepreneur; Recognizing that entrepreneurs must establish, maintain and analyze appropriate records to make business decisions; Developing a management plan for an entrepreneurial venture; Analyzing how forms of business ownership, government regulations and business ethics affect entrepreneurial ventures.

FIN 321: International Trade and Finance 3 Units

Definition of scope of business finance approaches to the study of financial management, firm's objectives with emphasis on profit maximization and wealth maximization, financial decision, mathematics of finance, capital market, budgeting, measure of risk, cost capital, leverages, gearing, financial structure, dividend policy, capital market theory, working capital management.

BUS 412: Business Ethics and Corporate governance 2 Units

Business ethics, management and organisational ethics, social contract theory, gender and work-life balance, the ethic of cares, Corporate governance: structure and history, principles of corporate governance, Board functions legal and ethical dimension of corporate planning, stakeholder's management.

B.SC (HONS) IN ENGLISH EDUCATION

Year One

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 102	Philosophy, Logic ad Philosophy of Science	C	2
ENG 110	Spoken English Practice I: The Segments	C	2
GST 105	Use of English	C	2
FED 121	General Principles of Teaching	C	2
ENG 115	Practical Criticism I	C	2
ENG 120	Spoken English Practice II: Beyond the segments	C	2
ENG 121	English Grammar Usage, Lexis and Grammar	C	2
ENG 112	Techniques of Essay Writing	C	2
ENG 113	Introduction to Poetry	C	2
ENG 124	Introduction to the Novel	C	2
ENG 114	Introduction to Drama	C	2
ENG 126	Practical Criticism II	C	2
ENG 122	Reading Comprehension and study skills	C	2
ENG 111	Elements of English Grammar and Usage	C	2
ENG 125	Academic and Technical writing	E	2
LIN 122	Introduction to Phonology	E	2
TOTAL UNITS OF COMPULSORY COURSES			**28**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Two

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 201	General African Studies I	C	2
GST 214	Basic Computer Concept	C	2
FED 212	Foundations of Education	C	2
FED 213	Introduction to Educational Psychology	C	2
FED 242	Elements of Special Education	C	2
ENG 212	Advanced writing skills, language and style	C	2
ENG 214	Drama Genres	C	2
ENG 221	Introduction to English Morphology	C	2
ASE 220	Teaching Integrated English at JSS level	C	2
ENG 210	Analysis of English Sentence Structure	C	2
ENG 211	Introduction to English Phonetics and Phonology	C	2

ENG 213	Poetry: Forms, Conventions and Techniques	C	2
ASE 210	Teaching Extensive Rapid Reading	C	2
ENG 215	Introduction to African literature	E	2
ENG 222	Oral communication skills	E	2
TOTAL UNITS OF COMPULSORY COURSES			**26**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Three

COURSE CODE	COURSE TITLE	STATUS	UNITS
FED 314	Introduction to Educational Technology and ICT	C	2
FED 313	Measurement and Evaluation	C	2
FED 321	Research Methods and Statistics	C	2
FED 311	Basic Principles of Curriculum Development and Instruction	C	2
ASE 340	Teaching Oral English in Secondary Schools	C	2
FED 315	Teaching Practice I	C	3
ASE 320	Teaching Literature-in-English at Senior Secondary School Level	C	2
ENG 223	The Pronunciation of English	C	2
ENG 224	The Novel: Classification and Techniques	C	2
ASE 310	Teaching English at Senior Secondary Schools	C	2
ENG 310	English Syntactic Analysis	C	2
ENG 220	The English Language in Nigeria	E	2
LIN 215	The structure of African languages	E	2
TOTAL UNITS OF COMPULSORY COURSES			**23**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Four

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 307	Entrepreneurship and Corporate Governance	C	2
FED 414	Teaching Practice II	C	3
ENG 320	Introduction to Transformational Generative Grammar of English	C	2
ASE 450	Curriculum in English Language	C	2
ASE 437	Literature and critical thinking development	C	2
ENG 436	Contemporary Modern African Novel	C	2
ENG 326	Nigerian Literature	C	2
ENG 328	20th Century American Literature	C	2
ENG 322	The English Language in Relation to Literary studies	C	2
ENG 331	Creative Writing	E	2
LIN 316	Linguistics and Book Publishing	E	2
TOTAL UNITS OF COMPULSORY COURSES			**21**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Five

COURSE CODE	COURSE TITLE	STATUS	UNITS
FED 413	Introduction to Educational Management	C	2
FED 423	Guidance and Counselling for Teachers	C	2
FED 488	Project	C	3
ENG 424	Introduction to English Stylistics	C	2
ASE 420	Curriculum in Literature in English	C	2
ENG 457	Modern English grammar and usage	C	2
ENG 439	Approaches to literary theory and criticism	C	2
ENG 421	Nigeria English Syntax and Usage	C	2
ENG 426	Shakespeare	C	2
ENG 423	Nigeria English Phonology	E	2

ENG 433	English Language skills for Print media writing	E	2
TOTAL UNITS OF COMPULSORY COURSES			**19**
TOTAL UNITS OF ELECTIVE COURSES			**4**

COURSES DESCRIPTION

YEAR 1

GST 102: Introduction to Philosophy and Logic **2 Units**

A brief survey of the main branches of Philosophy, Symbolic Logic; Special Symbolism, symbolic logic-conjunction, Negation, Affirmation, Disjunction Equivalence and conditional. Statement, Laws of thought, bio-conditionals Qualification Theory.

GST 103 Nigerian People and Culture **2 Units**

Study of Nigerian History and in pre-colonial times. Cultural areas of Nigeria and their characteristics. Evolution of Nigeria as a political unit. Ethical foundation of the Nigerian society, Norms and values, Environmental Sanitation etc.

GST 105: Use of English **2 Units**

Use of English is compulsory for all first year undergraduate students at this university. It is designed to enable them to master two major skills: speaking and writing. More specifically, the course is designed to enable all fresh students to learn to speak English at normal conversational speed; to speak fluently on a wide range of topics; to understand materials written in English and to write clear, logical and generally acceptable English irrespective of the student's discipline.

FED 121 General Principles of Teaching **2 Units**

This course exposes student-teachers with the concepts of profession, principles of teaching professions, and rudiments of teaching and learning. It emphasizes on types of teaching activities for selecting and stating objectives, lesson planning units, modules and daily lesson plan. It further exposes pre-service teachers to all aspects of teaching and class management before embarking on teaching practice. Students are also introduced to the various attributes and characteristics of the teaching profession, while equipping students with the essential qualities and multiple roles of a good and effective teacher.

FSC 113 Introductory Computer Science **2 Units**

Historical development of computers and their generations; classification of computers, computer hardware, computer software and programming languages; computer processing

modes and networking, information representation, introduction to programming, programming in basic internet.

ENG 120: Spoken English Practical II **2 Units**

This course is designed as a continuation of ENG 101 with special emphasis on the supra-segmental and conversational speech. Students are expected to acquire a high degree of proficiency in the current application of stress, rhythm and intonation and also develop the appropriate voice skills/control in public speaking conversations, discussion and reading aloud (Prerequiste DEN 101).

ENG 121: English Grammar Usage, Lexis and Structure **2 Units**

The emphasis in this course is on the different types of English grammatical structures and their usage. Different types of phrases and their syntactic functions (i.e. the noun phrase, the verb phrase, adverb phrase, the adjectival phrase, the prepositional phrase. Sentence type and their communicative functions (i.e. declarative, interrogative, imperative and explanative sentences with functions such as statements, questions, requests, directives, apologies, wishes, invitations, offers etc.). Simple, compound and complex sentences ((Prerequisite ENG 103)

ENG 112: Techniques of Essay Writing **2 Units**

The course emphasizes the techniques of writing logically and coherently. Development of sentences, paragraphs and essay writing abilities to the level required for a university level student. Emphasis on organization and development of the paragraph and the essay concentrating on clear and effective sentences, vocabulary, spelling and on correct standard written English idiom.

ENG 113: Introduction to Poetry **2 Units**

A study of poems representing various periods or ages – from the renaissance to the Modern – including selections from the poetry of at least four African poets. Emphasis will be on poetic language and structure.

ENG 124: Introduction to the Novel **2 Units**

A study of at least four novels is recommended. Emphasis will be laid on style and theme in the novel form. One of the texts must be by an African Author.

ENG 114 Introduction to Drama **2 Units**

A fairly detailed study of at least two Shakespearean play, plus three other plays of which one must be an African dramatist. Emphasis will be laid on action, plot and characterization. An examination of the use of language in relation to dramatic action is essential.

ENG 115: Practical Criticism **2 Units**

Continuation of the appreciation and critical evaluation of selected prose drama and poetic works. Various critical approaches will be examined biographic, philosophical, textual, structural, etc. A case study of texts is fundamental.

YEAR 2

GST 201: General African Studies I **2 Units**

Early African Cultures and Traditions

The cultural evolution of the man in Africa: the different ages, iron technology and agricultural development, writing and other forms of civilization in pre-colonial Africa: The Nok, Zimbabwe civilization, Ancient Senegalese cultures, different forms of governance and on-centralised political structure, the status and roles of women in ancient African societies.

Early Women African States, different kingdoms and empires; their rise and fall, different economic, social and political institutions in some ancient West African States like Tukar, Ghana, Mali, Songhai, Kanem Bornu, Benin, Yoruba, Igbo e.t.c. Indigenous technology and trade; domestic and trans-Sahara.

Colonialism and its impacts on African Development

Modes and methods of colonialism; imperialism and warfare technology; trade treaties, the effective use of missionaries and colonial "officials". African resistance against colonialism: The role of women: The slave trade, the role of the educated "elites". African indigenous religious vis-à-vis the introduction of Islam and Christianity. Negative and positive effects of imperialism and external trade with Europe and America.

GST 214: Basic Computer Concepts **2 units**

Introduction to computer systems, input and output Devices, Central processing Unit and storage Devices, Introduction to windows operating system, Introduction to word processing software, creating and saving of document, formatting documents, creating and editing tables, Advanced word processing features, Introduction to spread sheet, Data base management, Introduction to electronic communication and the internet.

FED 212: Foundations of Education **2 Units**

The course deals with an overview of origin and development of Education in West Africa, adult psychology, sociology and physiology, the issue of rapid change, knowledge explosion and obsolescence.

FED 213: Human Learning /Psychology of Education **1 Unit**

Definition of Psychology, education, learning; Relevance of Psychology in teacher education; Difference between teaching and learning; Factors affecting learning:

Environmental; Psychological; Neurophysiologic basis for learning; Emotion, attitude, interest, values and learning; Teacher-factor and learning; the underachiever; Remembering and forgetting; Techniques of effective study; Examination preparation and taking; Case studies.

FED 222: Elements of Special Education 2 Units

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

ASE 220: Teaching of Integrated English at JSS Level: Special Teaching Methods I 2 units

(Teaching English at Junior Secondary School Level)

The course explores the relationship between language and literature as well as how each serves the purpose of another. It exposes the trainees to the principles and methods of integrating English language and Literature at the junior secondary school level. It integrates literary appreciation with listening, speaking, reading and writing activities. It blends materials from literary genres (novel, play, and poem) to supplement and reinforce language works. It focuses on the use of literature as a technique for teaching both basic language skills (i.e. reading, writing, listening and speaking) and language areas (i.e. vocabulary, grammar and pronunciation) in the second language setting of English in Nigeria. It is designed to provide trainees with the opportunity to raise and debate issues related to exploring and incorporating literature in English language teaching. Relevant issues which highlight the relationship between literature and language teaching are addressed.

ENG 210: Analysis of English Sentence Structure 2 Units

The course introduces students to the principles and techniques of syntactic analysis with emphasis on the syntactic structure and how to analyze them. Constituent structure and visual demonstration, basic conversation and the primary structure of Arabic sentences are treated. IRS 193 and IRS 194 are introduced as subsidiary. Analysis, optional and obligatory constituents. English Linguistic forms and their patterns of co-occurrence (i.e selection restriction). Relations between sentences. English syntactic

categories, functional relations in English and paradigmatic relations in English syntax. The analytical framework for handling functional categories and their relations, procedure for syntactic analysis, data observation, tentative statements, verification generalization and rule formation. Basic meta- language for the analysis of English syntax

ENG 211: Introduction to English Phonetics and Phonology 2 Units

The course is designed to introduce students to the general principles of phonetic and phonological description in English. The mechanics of speech production airs reams, phonation and oro-nasal system/ process. Transcription and the principles of symbolic representation of sounds. The sound system of English; consonants and vowels. The supra segmental features of English: stress, rhythms, intonation, syllable structure, etc.

ENG 213: Poetry; Forms, Conventions and Techniques 2 Units

A variety of English ad African poetry to introduce students to the major poetic forms, conventions and techniques didactic, courtly heroic, mock-heroic, pastoral, elegy, discoursery, lyric, ballad, ode, sonnet, dramatic monology narrative poetry, confessional poetry, imagery, symbolism etc.

YEAR 3

FED 314: Introduction to Educational Technology and ICT 2 Units
The course offers on eclectic approach to the design process application and effects of technique in the teaching/learning situation. It is designed to broaden student teachers' knowledge on the systematic production, effective use and evaluation of inexpensive and local instructional materials for instructional purpose.

FED 313: Measurement and Evaluation 2 Units
Evaluation in the teaching process. Different techniques of evaluation: objective, essay, oral, performance and non-testing devices. Experience in test construction, administration, scoring, analysis and interpretation.

FED 321: Research Methods and Statistics 2 Units
The purpose of this course is to develop in the student the requisite skills for conducting and reporting research in Education. Topics discussed include overview of research process. General framework for developing research. Types of research design. Literature review, Populations, Samples, Research instruments. At the end of the courses the students will be required to write a proposal, preparing and starting them with writing their project.

FED 311: Basic principles of Curriculum Development 2 Units
A critical analysis of curriculum in terms of their relevance and National goals. Relationship between curriculum and instruction in terms of objectives specification, selection of learning experiences, learning materials, methods and media of instruction, and evaluation. An overview of curriculum innovation in a subject matter area with particular reference to Nigerian experience.

FED 315: Teaching Practice I 3 Units
Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

ASE 310: Teaching English at SSS level 3 Units
Principles and methods of teaching English Language as a second language at SSS; lesson planning and microteaching.

ENG 323: The Pronunciation of English 2 Units
Intensive practice in the pronunciation of English sounds, stress, Rhythm and intonation. Processes in connected speech – weak forms, assimilation, elision and linking. Emphasis will be placed on students' acquisition of spoken proficiency that will enable them to make the

appropriate minimal distinctions at the segmental levels, in stress and intonation and also to communicate fluently and intelligibly in their spoken utterances.

ENG 310: English Syntactic Analysis **2 Units**

Selected topics in English syntax using traditional/structuralize approaches to syntactic description. Sentence types and functions. The noun phrase; nouns, pronouns, determines of adjectives. The verb phrase; verbs and predication, subclasses of verbs, persons, number, mood, voice, tense, aspect and complement. Adverbials and prepositions.

YEAR 4

GST 407: Entrepreneurship and Corporate Governance **2 units**

Principles and concepts in Corporate Governance.

FED 414: Teaching Practice II **3 Units**

Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

ASE 420: Teaching Literature-in-English at SS level **3 Units**

Teaching the study of prose, drama and poetry with specific selection from recommended literature texts; literary analysis, comprehension skills, lesson procedures and instructional materials.

ENG 427: Nigerian Literature **2 Units**

A critical study of the works of major Nigerian writers such as Tutuola, Achebe, Clark, Soyinka, Okara, Okigbo, Rotimi etc. The course covers the major literary genres and emphasis is on the rise and development of Nigerian literature in English. Themes and stylistic features and techniques are evaluated in order to demonstrate the creative achievement of each writer.

ENG 428: 20th Century English Novel **2 Units**

Survey of classifications and techniques of the novel taking into account the conventions advantages of each form. Types of narration: first person, epistolary, stream of consciousness, omniscient narrative, untrustworthy narrator, historic, allegory, hero, anti-hero.

ENG 422: English Language in Relation to Literary Studies **2 Units**

The course is intended as a study of the various dimensions of the use of the English language in literary writing. Emphasis is placed on textual analysis of the linguistic features

and the varieties of language style used in the different genres of literature in English. A historical survey of the development of English Language from old English to Modern English and the diachronic changes that have affected its sound system, i.e. vocabulary and systematic pattern.

ENG 421: Nigerian English Syntax and Usage 2 Units

A detailed description and analysis of the syntactic characteristics of Nigerian English compared and contrasted with Standard English syntax (British and American). Nigerian English usage features – lexical and semantic modifications to standard usage. Written and spoken styles in Nigerian literary works and in the print media.

YEAR 5

FED 523: Guidance & Counselling for Teachers **2 Units**

Explanation of the meaning, history and objectives. Basic principles and techniques of guidance and counselling. Interaction with learners. Need for guidance and counselling. Educational, vocational and personal-social guidance and counselling. Individual and group guidance and counselling. Characteristics of a professional counsellor. Guidance services in schools. Other school personnel and the guidance programmes.

FED 588: Project **3 Units**

An individual original study of a relevant problem or topic in Early Childhood care and Education. Students should demonstrate competence in the techniques of research in the discipline.

ASE 510: Curriculum in English Language **2 Units**

The course reviews the elements of Senior Secondary curriculum, the philosophical, psychological and sociological underpinnings of curriculum development and presents the instructional guidelines to actualize the teaching components of English Language at the senior secondary level.

ASE 520: Curriculum in Literature-In-English **2 Units**

The course emphasizes in-depth discussion on the principles of curriculum development, implementation and evaluation as it relates especially to Literature-in-English. It explores the fundamentals of the philosophies and literary theories that underlie the curriculum, with special attention to the implications those theories have for teaching literature. It focuses on the examination of the aims and objectives, content, teaching-learning activities, instructional resources as well as evaluation procedures. It also gives guidelines on the implementation of the curriculum through the scheme of work, syllabus and lesson plans.

ENG 510: Modern English Grammar and Usage **2 Units**

A detailed study of modern English structure and usage with reference to syntax and lexis according to appropriate current method of analysis. Emphasis is placed on the in-depth study of the relationship between grammatical and lexical characteristics and contemporary usage in selected aspects of English grammar, so as to enable students to grasp the rudiments of vocabulary choice, structure and usage in writing as well as in speech. The grammar of formal and informal styles in English.

ENG 525: Shakespeare **2 Units**

The Shakespeare course will concentrate on representative plays selected to introduce the students to all the various types of drama written by this master playwright, namely; the

histories, tragedies, comedies and romances. The course will examine critically, the contents of these selected plays as well as their structure, languages and principles underlying them. References will be made to Elizabethan drama in general and dramatic practices in Nigeria as appropriate, to provide a comparative basis for the study.

ENG 523: Nigerian English Phonology **2 Units**

Analysis of the phonological features which characterize the varieties of English in Nigeria; standardization in Nigeria English phonology. A contrastive study of the patterns of phonological interference from indigenous Nigerian Languages to the regional accents of English in Nigeria.

B.SC. ED. EARLY CHILDHOOD CARE AND EDUCATION

Year One

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 105	Use of English I	C	2
GST 102	Introduction to Philosophy and Logic	C	2
ECE 126	Art Appreciation	C	2
FED 121	General Principles of Teaching	C	2
ECE111	Introduction to Early Childhood Education (ECE)	C	2
ECE 112	Philosophy of Montessori	C	2
ECE 113	Basic Communication Skills in ECE Teachers	C	2
ECE 116	Introduction to Practical First Aid	C	2
ECE 123	Language Development in ECE	C	2
ECE 114	The Nigeria Pre School Environment	C	2
ECE 115	Principles of Child Upbringing	C	2
ECE 121	Child Development Education	C	2
ECE 122	Working with Parent	C	2
ASE118	Language Awareness in ECE I	C	2
ECE 124	Science in Early Childhood Education	C	2
ECE 125	Health & Diseases	C	2
SOC 121	Introduction to African Societies and Culture	E	3
SOC 113	Introduction to Development studies	E	2
TOTAL UNITS OF COMPULSORY COURSES			**32**
TOTAL UNITS OF ELECTIVE COURSES			**5**

Year Two

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 201	General African Studies	C	2
GST 214	Basic Computer Concepts	C	2
FED 212	Foundations of Education	C	2
FED 213	Introduction to Educational Psychology	C	2
FED 242	Elements of Special Education	C	2
ECE 213	Creative activities in Early years	C	2
ECE 211	Child & School Observation	C	2
ASE 228	Special teaching methods in ECE	C	2
ECE 219	Handling Emergencies in ECE classrooms	C	2
ECE 224	Teaching Value in ECE	C	2
ASE 218	Language Awareness in ECE II	C	2
ECE 215	ICT in Nursery School	C	2
ECE 223	Language Development in ECE II	C	2
ECE 222	ECE Mathematics	C	2
ECE 229	Communication skill in ECE	E	2
ECE 216	Risk and Resilience in ECE	E	2
TOTAL UNITS OF COMPULSORY COURSES			**25**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Three

COURSE CODES	COURSE TITLE	STATU	UNIT
FED 313	Measurement and Evaluation	C	2
FED 314	Introduction to Education Technology and ICT	C	2
FED 311	Basic Principles of Curriculum Development and Instruction	C	2
FED 321	Research Methods and Statistics	C	2
FED 315	Teaching Practice I	C	3
ECE 312	Children's Educational Theatre	C	2
ECE 326	Resource Management in ECE	C	2
ECE 311	Internship in ECE	C	2
HED 314	Accident Prevention and Safety Education	C	2
ECE 313	Teaching Elementary Science	C	2
ECE 328	Sensorial Education	C	2
HKE 216	Personal Health and Physical fitness	E	2
ECE 329	Parental Community Collaboration in ECE	E	2
TOTAL UNITS OF COMPULSORY COURSES			**23**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Four

COURSE CODE	COURSE TITLE	STATUS	UNITS
GST 307	Entrepreneurship & Corporate Governance	C	2
FED 414	Teaching Practice II	C	3
ECE 415	Mathematics (Montessori)	C	2
ECE 326	The Child and protection Issues	C	2
ECE 324	Integrated Management of Childhood Illness	C	2
ECE 327	Principles, problems and procedures for child-rearing practices	C	2
ASE 328	Special Teaching Methods in ECE II	C	2
ECE 341	The Nigerian Pre-School Child	C	2
ECE 314	Introduction to diverse classrooms	E	2
ECE 325	Working with Special needs children	E	2
TOTAL UNITS OF COMPULSORY COURSES			**17**
TOTAL UNITS OF ELECTIVE COURSES			**4**

Year Five

COURSE CODE	COURSE TITLE	STATUS	UNITS
FED 413	Introduction to Educational Management	C	2
FED 488	Project	C	3
FED 424	Guidance & Counselling for Teachers	C	2
ECE 418	Assessment of Young children with exceptionality	C	2
ECE 422	Standard in ECE Practice	C	2
ECE 424	ICT in ECE	C	2
ECE 427	Early Childhood curriculum development	C	2
ECE 426	Emergent Issues and Trends in ECE	E	2
ECE 428	Family, Schools & Literacy	E	2
ASE 418	Literacy and literature in ECE classrooms	E	2
TOTAL UNITS OF COMPULSORY COURSES			**15**
TOTAL UNITS OF ELECTIVE COURSES			**6**

COURSES DESCRIPTION

YEAR ONE

GST 105: Use of English **2 units**

The course enables students to acquire improved study skills and better communicative skills in the use of English for general and academic purposes at the University level.

GST 102: Introduction to Philosophy and Logic **2 Units**

A brief survey of the main branches of Philosophy, Symbolic Logic; Special Symbolism, symbolic logic-conjunction, Negation, Affirmation, Disjunction Equivalence and conditional. Statement, Laws of thought, bio-conditionals Qualification Theory.

GST 103: Nigerian People and Culture **2 Units**

Study of Nigerian History and in pre-colonial times. Cultural areas of Nigeria and their characteristics. Evolution of Nigeria as a political unit. Ethical foundation of the Nigerian society, Norms and values, Environmental Sanitation etc.

FED 121: General Principles of Teaching **2 Units**

This course exposes student-teachers with the concepts of profession, principles of teaching professions, and rudiments of teaching and learning. It emphasizes on types of teaching activities for selecting and stating objectives, lesson planning units, modules and daily lesson plan. It further exposes pre-service teachers to all aspects of teaching and class management before embarking on teaching practice. Students are also introduced to the various attributes and characteristics of the teaching profession, while equipping students with the essential qualities and multiple roles of a good and effective teacher.

FSC 113: Introduction to Computer Science **3 units**

Hardware: functional components. Software. System application packages. Program development. Flowcharting. Program objects. Basic programming. Computer application areas and technological trends.

ECE 111: Introduction to Early Childhood Education: **2 Units**

This course provides basic information and rationale for Early Childhood Education intervention in Nigeria. Basic terms and concepts are defined and explained. Aspects of Early Childhood Education relating to the views of the child, school readiness, curriculum, implementation strategies are taught.

ECE 117: Philosophy of Montessori Education **2 Units**

This course expounds the important elements such as the unbiased nature of adults, the didactic materials and the environment that play pivotal role in forming the philosophy of Montessori Education. It emphasizes the recognition that children are capable of

concentration, and love repetition, order, silence and have preference for work over play and have sense of dignity and highlights the importance of the environment that permits spontaneous activities and socialization which is a necessary condition for the absorbent mind of the child.

ECE 112: Basic Communication Skills in ECE for Teachers 2 Units

This course introduces students to the fundamental concepts, theories, principles and practices of communication and counselling. It seeks to foster the skills for effective communication and counselling by exploring such areas as communication skills; basic counselling skills; dynamics of human interaction, etc., as they relate to children's growth development and general well-being.

ECE 115: Introduction to Practical First Aid 2 Units

ECE 123: Language Development in ECE 2 Units

ECE 113: The Nigeria Pre School Environment 2 Units

ECE 114: Principles of Child Upbringing 2 Units

It is important for caregivers to be aware of the variety of methods of rearing children. This course therefore examines child rearing methods with particular reference to individual differences existing in amongst the children.

ECE 121: Child Development Education 2 Units

ECE 122: Working with Parents 2 Units

Teachers need to be interested of the important contributions that parents can make to the early educational experiences of the young children. The cultural, political, economic and social factors, parenting and communication styles are essential aspects that the course examines.

ECE 116: Language Awareness in ECE I 2 Units

This is an introduction course on language teaching which aims to give students a bird's eye view of issues involved in language learning and teaching. The main focus is on Nigerian languages.

ECE 124: Science in Early Childhood Education **2 Units**

The course is designed to give an insight into children's activities –key concepts, materials, curiosity in children, investigation, experimentation, exploration and introducing Science to children.

ECE 125: Health and Disease **2 Units**

The health status of the children is an indicator of the health status of the future leaders. This course offers the students necessary information on health care, common childhood illness, prevention and control and basic skills in health issues.

SOC 113: Introd.to Social Work **2 Units**

ASE118: Introduction to Development Studies **2 Units**

YEAR TWO

GST 201: General African Studies I **2 Units**

Early African Cultures and Traditions

The cultural evolution of the man in Africa: the different ages, iron technology and agricultural development, writing and other forms of civilization in pre-colonial Africa: The Nok, Zimbabwe civilization, Ancient Senegalese cultures, different forms of governance and on-centralized political structure, the status and roles of women in ancient African societies.

Early Women African States, different kingdoms and empires; their rise and fall, different economic, social and political institutions in some ancient West African States like Tukar, Ghana, Mali, Songhai, Kanem Bornu, Benin, Yoruba, Igbo etc. Indigenous technology and trade; domestic and trans-Sahara.

Colonialism and its impacts on African Development

Modes and methods of colonialism; imperialism and warfare technology; trade treaties, the effective use of missionaries and colonial "officials". African resistance against colonialism: The role of women: The slave trade, the role of the educated "elites". African indigeneous religious vis-à-vis the introduction of Islam and Christianity. Negative and positive effects of imperialism and external trade with Europe and America.

GST 214: Basic Computer Concepts **2 Units**

Introduction to computer systems, input and output Devices, Central processing Unit and storage Devices, Introduction to windows operating system, Introduction to word processing software, creating and saving of document, formatting documents, creating and editing

tables, Advanced word processing features, Introduction to spread sheet, Data base management, Introduction to electronic communication and the internet.

FED 212: Foundations of Education **2 Units**

The course deals with an overview of origin and development of Education in West Africa, adult psychology, sociology and physiology, the issue of rapid change, knowledge explosion and obsolescence.

FED 213: Human Learning/Psychology of Education **1 Unit**

Definition of Psychology, education, learning; Relevance of Psychology in teacher education; Difference between teaching and learning; Factors affecting learning: Environmental; Psychological; Neurophysiologic basis for learning; Emotion, attitude, interest, values and learning; Teacher-factor and learning; the underachiever; Remembering and forgetting; Techniques of effective study; Examination preparation and taking; Case studies.

FED 222: Elements of Special Education **2 Units**

Survey of the field of special education, definitions, terminology, National Policy provision on Special Education, characteristics and educational implications of impairment and other handicapping conditions in children. Inclusive classrooms, general hints about teaching exceptional children, Attitude in Special Education, Professional and programmes in Special Education.

ECE 213: Creative `Activities in Early years **2 Units**

This is basically the creative skills that the teachers are meant to teach the pupils. Students will be exposed to the elementary media of visual arts, music, movement and dance, drawing, sketching, painting, paper, marcher, craft, etc.

ECE 211: Child and School Observation **2 Units**

ASE 228: Special Teaching methods in ECE II **2 Units**

A general survey of different methods used in teaching pre-school children. A consideration of the values and significance of play and music in learning. Modelling and creativity among children, Learner-centred and play-oriented methods among children will be significantly treated. A careful re-assessment of the Montessori method will be discussed.

ECE 229: Communication Skill in ECE **2 Units**

ECE 224: Teaching of Values in ECE **2 Units**

The course will involve analysis of the nature of values, the process by which values are acquired and changed, the implications of these matters for school curriculum and teaching methods.

ECE 223: Art Appreciation 1 **2 Units**

This course is meant for the teachers of the pupils of these ages, it is pertinent to split the course out line into two: Introduction to Art (theory) and Creative Skills in Art (practical).

The teachers must have a basic knowledge of Art theory in order to have a good foundation on appreciation and evaluation of pupils' work. This outline has been divided into two segments; the first part, which is the foundation of art appreciation, is to be administered in the first semester is more theoretical based. This is to instil the concept of arts, important of art and the principle of evaluating art works in the teacher. The second part is more practically based; this is basically the creative skills that the teachers are meant to teach the pupils.

ECE 126: Basic Skills in Arts **2 Units**

Students will be exposed to the elementary media of visual arts, music, movement and dance, drawing, sketching, painting paper marcher craft etc.

ECE 222: ECE Mathematics **2 Units**

The focus is on exposing students to primary mathematics content in the areas of pre-number, number recognition, number relationships, L.C.M., H.C.F., Odd and Even numbers, Fractions and Decimals, Squares and Square Roots.

SOC 121: Introduction to African societies and culture **3 Units**

ECE 216: Risk and Resilience in ECE **2 Units**

YEAR THREE

FED 313: Measurement and Evaluation 2 Units
Evaluation in the teaching process. Different techniques of evaluation: objective, essay, oral, performance and non-testing devices. Experience in test construction, administration, scoring, analysis and interpretation.

FED 314: Introduction to Educational Technology and ICT 2 Units
The concept, application and psychological foundations of educational technology. Educational media. Teaching methods and techniques. Community resources for teaching and learning processes. Systems approach to instruction. Programmed instruction. Computer in education and practical.

FED 311: Basic Principles of Curriculum Development and Instruction 2 Units
The course presents basic concepts and principles of curriculum, curriculum development, instruction, and the relationship between curriculum and curriculum instruction. It further exposes the students to the various selected theories and models of curriculum development, basic principles of content selection and objective formulations, applications to school subjects with particular reference to the National Policy on Education and other ways of pursuing curriculum improvements in the schools.

FED 321: Research Methods and Statistics 2 Units
The purpose of this course is to develop in the student the requisite skills for conducting and reporting research in Education. Topics discussed include overview of research process. General framework for developing research. Types of research design. Literature review, Populations, Samples, Research instruments. At the end of the courses the students will be required to write a proposal, preparing and starting them with writing their project

FED 315: Teaching Practice I 3 Units
Exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

ECE 323: Language Development in ECE II 2 Units

ECE 326: Resources Management in ECE 2 Units
Educational materials are imperative for effective teaching and learning. This course is designed to increase the awareness and develop the practice of sourcing and utilizing teaching materials. The students will be exposed to various techniques and approaches to enhance teaching in the early years.

ECE 315: ICT in Nursery School **2 Units**

The course is designed to give an insight into children's activities in information communication and technology.

ASE 318: Language Awareness in ECE II **2 Units**

The course further focuses on language teaching which aims to give students a bird's eye view of issues involved in language learning and teaching. The main focus is on Nigerian languages.

ECE 313: Teaching Elementary Science **2 Units**

The course is designed to equip students with appropriate teaching methods and materials for teaching Elementary Science.

ECE 328: Sensorial Education **2 Units**

With the emergence of the Montessori Method of educating children also comes the "new teacher". The teacher in the Montessori environment is not a "teacher" but a "directress" This course introduces curriculum area dealing with the training of the senses of the children so that they can be functioning individuals in their environment. These are designed to meet the education and refinement of the five sense organs of auditory, visual, tactile and olfactory.

HKE 316: Personal Health and Physical Fitness **2 Units**

Details of principles of training as applicable to various sports and games, practical in circuit training and the effects of calisthenics and exercises on physical fitness

ECE 328: Integrated Curriculum in Early Childhood Education **2 Units**

ECE 329: Parental Community Collaboration in ECE **2 Units**

YEAR FOUR

GST 407: Entrepreneurship and Corporate Governance 2 units
Principles and concepts in Corporate Governance.

FED 414: Teaching Practice II 3 units
Further exposure of students to real classroom situations as subject teachers. Students further sharpen their skills in lesson preparation, setting of lesson objectives, carrying out planned lessons and evaluation of lesson outcomes.

ECE 411: Internship in Early Childhood Education 2 Units
A compulsory attachment to an early childhood nursery institute to acquire practical skills/experiences in the teaching, administration and management of early childhood institutions is embedded in the course.

ECE 426: The Child and Protection Issues 2 Units

ECE 424: Integrated Management of Childhood Illnesses 2 Units
With the Overall objective of contributing to the reduction of child morbidity and mortality in developing countries, this course exposes students to the Integrated Management of Childhood Illnesses (IMCI) strategy which combines improved management of common childhood illnesses with aspects of nutrition, immunization and other important factors relating to child health, including maternal health.

ECE 427: Principles, Problems and Procedures for Child-rearing Practices 2 Units
Within the context of traditional early childhood education, this course examines the Principles, Problems and Procedures for Child-rearing Practices in Africa, with particular reference to Nigeria, under the following: aims and objectives of traditional education in Nigeria; child rearing practices- conception, pregnancy and birth, Breast-feeding, weaning and toilet training; the nature of the Nigerian family; parental involvement in the training of the young; attitude towards having children, childlessness, illegitimate and handicap children; physical and intellectual training for the preschool age child in the traditional system of education; and, comparison of traditional and modern (formal) education system.

ECE 412: Children's Education Theatre 2 Units
The Pre-school classroom teacher plays a very crucial role in fostering creativity in the children. It is therefore necessary for the teachers to have knowledge of the varieties of creative expressions of the children.

ASE 428: Special Teaching methods in ECE II **2 Units**

Further: A general survey of different methods used in teaching pre-school children. A consideration of the values and significance of play and music in learning. Modelling and creativity among children, Learner-centred and play-oriented methods among children will be significantly treated. A careful re-assessment of the Montessori method will be discussed.

ECE 417: Formal and Non-Formal Education **2 Units**

The early childhood teachers need to be aware of the forms, structure and practices of the conventional, non-conventional setting in respect to curriculum, methods, environmental factors/demands and activities.

HKE 414: Accident Prevention and Safety Education **2 Units**

Designed to provide overview of the major safety and disaster problems of our time. To promote safety education in schools, colleges and community. Home safety, fire safety water safety, sports safety. Emergency care of victims in homes, work place and road accidents at play. Review of current disaster in the country and around the world.

ECE 422: The Nigerian Preschool Child **2 Units**

This course examines the concept of preschool and pre-schoolers. The course equally looks at the rights of preschool children and examines government policy for preschool. It describes the various developmental milestones that children pass through and give highlight of parental responsibilities to children during the various milestones. The course looks into the various challenges of preschool children in the early years and highlights the effect of these challenges on pre-schoolers.

ECE 414: Introduction to diverse classrooms **2 Units**

ECE 425: Working with Special needs children **2 Units**

YAER FIVE

FED 513: Introduction to Educational Management **2 Units**

FED 588: Project **3 Units**

An individual original study of a relevant problem or topic in Early Childhood care and Education. Students should demonstrate competence in the techniques of research in the discipline.

FED 523: Guidance & Counseling for Teachers **2 Units**

Explanation of the meaning, history and objectives. Basic principles and techniques of guidance and counselling. Interaction with learners. Need for guidance and counselling. Educational, vocational and personal-social guidance and counselling. Individual and group guidance and counselling. Characteristics of a professional counsellor. Guidance services in schools. Other school personnel and the guidance programmes.

ECE 517: Assessment of Young Children with Exceptionalities **2 Units**

Assessing children at early childhood stage of development is quite different from assessing older children and even more in the case of children with exceptionalities. Assessment of children at this level of development should be holistic, reflecting adequate consideration for the varied abilities of the learners in the classroom. Accordingly, this course will cover such areas as; need for assessment; types of assessment; tools for assessment; interpretation of information gathered among others.

ECE 515: Montessori Mathematics **2 Units**

Montessori sees mathematics as being very useful in everyday life of the child because it provides a powerful, concise and unambiguous means of communication. This course expounds the belief that mathematics is an abstraction and a sequential subject which involves a hierarchy of abstractions and requires an understanding of the mathematical concept on which it depends. It equips the teacher with the skills of leading children through the hierarchy without losing the chain of connecting abstract thought when he sees an object and ensuring that children's experiences progress through these sequences of abstractions.

ECE 522: Standards in ECE Practice **2 Units**

The course describes the integrated interventions from the various sector of health, nutrition, education, protection and participation to ensure positive outcomes for the child in terms of cognitive achievement, care and development. It spells out the prescribed minimum standards for IECD implementation in Day care/crèche, preschools and Nursery/Kindergartens, the course highlights the characteristics of effective

centres, classrooms, the statutory records, furniture, community and Governmental involvement and methods of Assessment.

ECE 524: ICT in ECE **2 Units**

The concept, application and psychological foundations of information communication and technology. ICT in Teaching methods and techniques. Community resources for teaching and learning processes. Systems approach to instruction. Programmed instruction. Computer in ECE and practicals.

ECE 527: ECE Curriculum Development **2 Units**

The course gives an in-depth examination and analysis of the curriculum for early child hood Education. The history, aim, rationale, objectives structure, theories and principles of curriculum Planning, development, implementation and assessment for early childhood.

ECE 526: Emergent Issues & Trends in ECE **2 Units**

Early childhood education is a dynamic field that is witnessing innovations in programmes and approaches. These have direct effects on the growth and delivery of early childhood education. The early childhood education teachers therefore need to be aware of the current issues and debate in the field.

ECE 528: Family Schools and Literacy **2 Units**

This course explores researches, theories and issues in family literacy and parental involvement in education strategies for intervention and home-school collaboration in literacy development. It describes the perspectives of family literacy programs and attempts to draw out the guiding programme principles for implementing literacy program. The course is participatory as students are expected to research into various aspects of the issues.

ASE 518: Literacy and Literature in ECE classroom **2 Units**

Emergent reading and writing form the bedrock of Early childhood Education and literary materials in form of supplementary readers are one of its resources. The course is designed to expose early care givers and preschool and other teachers to the fundamentals of reading and writing instruction at the preschool and lower primary school levels through resources such as songs, rhymes, folktales, poems, short stories, drama sketches, drawings and so on. It explores the importance of reading in language development and academic achievement of preschoolers.

GENERAL INFORMATION
ON GENERAL STUDIES (GST) COURSES

GST courses are (must be taken and passed before graduation) for all University of Lagos students (UTME and Direct Entrants). 200 level entrants by any means are **NOT** exempted from 100 level GST courses.

Discontinued GST Courses

With effect from 2002/2003 session, GST 103, 104, 106 and 113 have been discontinued and will be run as tutorials **ONLY FOR Pre-2002/2003 STUDENTS WHO HAVE NOT PASSED**

THE DISCONTINUED COURSES. In effect, NO STUDENT WHO REGISTERED AFTER 2001/2002 SESSION is expected to register for, or take these four discontinued GST courses unless a re-introduction is approved by the Senate. Starting from 2012/2013 Session no discontinued GST course will be examined.

Grading System for GST Courses with Effect from 2002/2003 Session

Beginning with students (UTME and Direct Entry) admitted from 2002/2003 session, examination for GST courses shall be determined on a pass (40%) and above or Fail (39%) basis will not be used in the computation of Grade Point Average (GPA). For students admitted **BEFORE** 2002/2003 sessions, the grades of GST Courses are used in the computation of GPA.

It is necessary to advise that the fact that the results of GST courses are not used in the computation of GPA does not imply they are not important for graduation. For example, if a student failed an elective course, whose grade is not used in the computation of GPA, he or she can still graduate if the required number of units for graduation has been passed.
However, a student cannot graduate without passing all the GST courses, even if such results are not used in the computation of GPA.

Additional Notes

(1) All GST courses carry unweighted credit load of 2 units.

(2) It is hoped that you will find the above information useful and that your Course Advisers will take note of the grading systems for Pre-2002/2003 and Post-2002/2003 students.

Faculty	Level of Study						Total
	100		200		400		
	1st	2nd	1st	2nd	1st	2nd	
Arts Education (Arts) Law Social Science	102 105		201	214	407		10
Bus Admin College of Medicine Education (Science) Engineering Environmental Sc. Pharmacy Science	102 105	103	201		407		10

APPROVED GST COURSES FOR ALL FACULTIES

From 2011/2012 Session

GST 102 - Philosophy, Logic and Philosophy of Science

GST 103 - Nigerian Peoples and Cultures

GST 105 - Use of English

GST 201 - General African Studies

GS 214 - Basic Computer Studies

GS 407 - Entrepreneurship and Corporate Governance

SYNOPSES OF THE GST COURSES

GST 102 (Philosophy, logic & Philosophy of Science)

Problems and Scope of Philosophy
Metaphysics as a Branch of Philosophy
Epistemology as a Branch of Philosophy Ethics and Aesthetics
Socio-Political Philosophy
Logic: Its Nature and Scope
Fallacies and Conditional Statements
Basic Concepts of Quantification Theory
Elements of Formal Logic'
Man, Philosophy and Technology
Scientific Method: An exposition
The Rise and Development of Science and Technology Environmental Philosophy
Common Features of Science
Epistemological Appraisal of Scientific Methodology

GST 103 (Nigerian Peoples and Cultures)

An Ethno-historical Survey of Nigeria
The Evolution of Nigerian Culture
The Political Culture and Urban Development in Nigeria
Inter-group Relations among Nigeria Communication
Islamic Culture and the Nigerian Society
Christianity and the Development of the Nigeria State
Nigeria in the 19th Century
The Economy and the State from the Pre-colonial Times to the Present
Western Influence on Nigeria in the age of New Imperialism
The Role of Women in National Development
The Growth of Nationalism and the Political Evolution of Nigeria
The Influence of American Education on the Evolution of Nigerian Culture Nigeria since Independence

GST 105 (Use of English)

Listening Skills
Lectures and Note taking
Obstacle to Effective Listening
Effective Listening Techniques

Speaking Skills I
The Organ of Speech
Symbols and Transcriptions

Reading Skills IV
Library Resources
Internet Resources

Writing Skills I
The paragraph
Structure of a Paragraph

The sounds of English

Speaking Skills II
Phonetics and Phonology
Syllable and Stress
Paragraph in an Essay

Writing Skills II
Essay writing
Connecting

Reading Skills I
Types of Reading
Reading Deficiencies
Strategies for Effective Reading

Writing Skills III
Pronunciation
Capital Letters
Spelling

Reading Skills II
Reading Comprehensive
Comprehension and Summary
Strategies for Summarization

Vocabulary
Strategies for Learning
Types of Learning
Word Formation Strategies

Reading Skills III
Study Reading
SQ3R
Other Methods of Study Reading

Grammar
Grammatical Hierarchy
Word Class
Phrases/Clauses

GST 201 (General African Studies)

Culture and Society in Africa

(i) Culture and Society in Africa
(ii) Social Organisation
(iii) Social Change

Social Organization

(i) Definitions of Social Organization
(ii) Family and Kinship-Structural Varieties
(iii) Marriage and Typologies of Marriage in Africa-Polygamy, Monogamy, Polyandry, Plural Marriages, Homogamy, Levirate, Ghost, etc.
(iv) Antecedents of Marriage and Family (v) Rules Economic and Descent
(vi) Pre-colonial Economic and Political Arrangements including Dispute in Resolution.

Social Change

Concept and Theories of Social Change
Agents of Social Change - Family, Social Actors, Mass Media, Government, Social Groups, Schools, etc. Targets of Social Change
African Languages and Literatures
(i) The Language picture of Africa

(ii) Official and Vernacular/Pidgin in Africa
(iii) Written and Unwritten Languages

African Music & Dance
(i) Dances and Music in Africa-Definitions and Varieties'
(ii) Popular Culture
(iii) Music Therapy

The Geography of Africa
(i) Socio-temporal Characteristics of Africa
(ii) Social Economics and Urban geographies
(iii) Problems of Modern Development: Transportation Issues, Population, Urban Congestion,
etc.

Traditional Medicine in Africa
(i) Types of African Medicinal Herbs
(ii) Categories of Indigenous Healers in Africa
(iii) Merits and Demerits and Integration of Indigenous Healing Systems with the Orthodox'
Therapy

Race and Identity
(i) Blood Groups and Transfusion
(ii) Paternity Testing
(iii) Sex Determination

GST 214 - (Basic Computer Studies)

Introduction to Computer Systems
Input and Output devices
Central Processing Unit and Storage Devices
Introduction to Windows Operating System
Introduction to Word Processing Software
Creating and Saving of Document
Formatting Documents
Creating and Editing Table
Advanced Word Processing Features
Introduction to Spreadsheet
Database Management
Introduction to Electronic Communication and the Internet

GST 407 (Entrepreneurship and Corporate Governance)

Module 1: Knowing Your Business Environment

Unit 1 Nigerian Business Environment
Challenges
Prospects

Unit 2 - Entrepreneurship and Entrepreneurs
Concept of Entrepreneur and Entrepreneurship
Traits or Characteristics of Entrepreneurs
Motivations of Factors Influencing Entrepreneurial Behaviour
Barriers to Entrepreneurial Culture

Unit 3 - Promotion of Entrepreneurship
The Contributions of Micro, Small and Medium Enterprises to Socio-Economic Development
Classification of Small and Medium Enterprises
Appraisal of Past Policies of Government at Promoting Entrepreneurship
Constraints to Financing SMEs in Nigeria
Government's new Approaches of Promoting Entrepreneurship
Funding by Multi-lateral Agencies'

Unit 4 - External (International) Business Environment
Export Trade and Incentives
International Organizations with Bearing on Nigerian Trade Policy
Globalization

Module 2: Starting Your Own Business
Unit 1 - Generating Business Ideas and Information Gathering
Environmental Scanning for Business Opportunities
Sources of Business Information
Types of Projects
Projects Selection Criteria

Unit 2 - Formation of Business Organizations
Forms of Business Organization
Registration of Companies
Intellectual Property and Copyrights Laws and Organisations in Nigeria

Unit 3 - Preparation of Business Plan
Meaning of Business Plan
Importance of Business Plan
The Planning Process
Elements of Good Business Plan

Module 3: Managing Your Own Business

Unit 1- Overview of Effective Business Management

Definition of Management
The Functions of Management
Management Success
Guides to Good Management Practice
Building High Performance Teamwork

Unit 2 - Marketing Function

Meaning, Functions and Scope of Marketing
The Marketing Mix
Forces Affecting Modern Marketing

Unit 3 - Personnel Functions

Recruitment
Training and Development
Methods of Training
Staff Welfare
Welfare Services

Unit 4 - Time and Project Management

Objectives of Effective Time Management
Principles Guiding Time Management
Benefits of Time Managements
Strategies for Managing and Evaluating Time
Meaning of Project
Projects Management Processes
Projects Management Strategies

Unit 5 - Health and Safety Issues in Small Business Firms

Safety Issues
Setting up Safety Programme and Benefits HIV/AIDS in the Workplace

Module 4: Financing Your Own Business

Unit 1 - Sources of Finance for Business in Nigeria

Sources of Finances
Roles of Banks in Financing SMEs in Nigeria

Unit 2 - Financial Statement Analysis

Cash Budget
Analysis of Cash Flow
Estimating Cash Balances

Interpreting Financial Statement

Unit 3 - Working Capital Management
Management of Stock
Management of Debtors
Trading on Working Capital

Module 5: Corporate Governance

Unit 1 - The Nature and Essence of Corporate Governance in Business
Meaning and Definitions of Corporate Governance
The Essence of Corporate Governance
Attributes of Good Corporate Governance