



**POSTGRADUATE BOOK FOR DEGREE PROGRAMMES,  
POLICIES AND REGULATIONS GOVERNING  
POSTGRADUATE STUDIES**

Approved March 7<sup>th</sup>, 2023

## **1.0. CALEB UNIVERSITY GENERAL INFORMATION**

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ACADEMIC YEAR: October-July

Language of Instruction: English

**Bankers: Ecobank Nig. Plc 1993000883**

All communications should be addressed to:

The Registrar, Caleb University

Km 15, Ikorodu-Itoikin Road

Imota, Lagos State, Nigeria

**NB:**

Everything written in blue is my alteration

Task Completed

- ✓ Harmonized examination instructions (15.0)
- ✓ Harmonized PG booklet content with the table of content (31.1, 31.2, 31.3, 32.0, 32.1, 32.2, 32.3, 33.0, 33.1, 33.2, 33.3)

I could not harmonize the admission/registration & matriculation requirements because of a broad range of peculiarities across several departments.

Probation and withdrawal requirements vary across some departments, I will need further instructions. See 32.0 PG 137 & 56.0 PG 365

Portions of the PG booklet to be considered by the Board:

**8.0. GENERAL REGULATIONS GOVERNING POSTGRADUATE ADMISSIONS**

**8.1 DEPARTMENTAL POSTGRADUATE STUDIES COMMITTEE**

**9.0. REGISTRATION AND ORIENTATION UPDATE WITH SOP ON REGISTRATION**

**14.0. UNIVERSITY EXAMINATIONS INSTRUCTIONS TO CANDIDATES**

**15.0 RULES AND REGULATIONS GOVERNING THE CONDUCT OF EXAMINATION IN CALEB UNIVERSITY**

**15.1. EXAMINATION MISCONDUCT OR OFFENCE**

**23.14 REFERENCE STYLE**

**31.2SUB: ADMISSION REQUIREMENT**

## **2.0. PHILOSOPHY OF THE UNIVERSITY**

Caleb University is committed to the training of future leaders imbued with ability and integrity, focusing on overall success building. In this regard, the University shall inculcate in the students, sound academic knowledge, commendable character building, unparalleled entrepreneurial skills and a rich culture.

## **2.1. OBJECTIVES**

The objectives of the University are to:

- produce highly skilled manpower and well-rounded Postgraduates that will positively contribute to the labour market with potentials of becoming employers of labour.
- provide appropriate industrial and entrepreneurial training anchored on relevant research programme in partnership with leading business organizations.
- produce internationally acceptable Postgraduates with skills and competence for employability in the linguistic neighborhood of Nigeria and beyond.
- create an enabling environment that would promote the advancement of learning and hold out to all persons without distinction of race, creed, sex, religion and political conviction.
- undertake any other activity that would contribute to teaching, research and public service as expected of a university of high standard.

## **2.2. VISION**

To be an innovative leader in producing impactful human resource, and sustaining Excellence in Learning, Service and Godly Character.

## **2.3. MISSION**

Providing opportunities for a globally competitive education and Research in a godly environment with visible and positive societal impact.

## **2.4. CORE VALUES**

Godliness, Innovation, Service, Integrity, Teamwork, Excellence, Creativity

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### 3.0. MEMBERS OF THE UNIVERSITY COUNCIL

Prof. Sunday Olukayode <b>AJAYI</b>	Chairman	Pro-Chancellor & Chairman of the Council
Prof. Nosa <b>OWENS-IBIE</b>	Member	Vice Chancellor
Prof. S. A. <b>DARAMOLA</b>	Member	Deputy Vice Chancellor Academics
Prof. O. U. <b>ASIKHIA</b>	Member	Deputy Vice Chancellor Research, Innovation, Strategy and Administration
Pastor Olufemi <b>AJAYI</b>	Member	Proprietor's Representative
Mr. Dipo <b>OJEDEJI</b>	Member	Proprietor's Representative
Dr. Aduragbemi <b>ADEBOGUN</b>	Member	Proprietor's Representative
Prof. Adewale Sunday <b>OLUMUYIWA</b>	Member	Proprietor's Representative
Hon. (Mrs.) Olajumoke <b>OKOYA-THOMAS</b>	Member	External Member
Mrs. Tinuade Ajoke <b>ADETONA</b>	Member	External Member
Dr. Abiodun Sakiru <b>OKEDEYI</b>	Member	Host Community
Arc. Dhikrullah A. K. <b>HAR-YUSUPH</b>	Member	Host Community
Mr. Segun Isaac <b>IDOWU</b>	Member	Lagos State Government Representative
Prof (Mrs.). Teju <b>SOMORIN</b>	Member	Senate Representative
Prof. Moses <b>AKIIBINU</b>	Member	Senate Representative
Mr. Christian <b>ODEFADEHAN</b>	Member	Alumni Representative
Mr. Pius <b>MOGBOJURI</b>	Member	Congregation Representative
Mr. Mayokun <b>OLUMERU</b>	Member	Registrar & Secretary to Council

### 3.1 PRINCIPAL OFFICERS OF THE UNIVERSITY

Prof. Nosa <b>OWENS-IBIE</b>	VICE CHANCELLOR
Prof. S. A. <b>DARAMOLA</b>	DEPUTY VICE CHANCELLOR ACADEMICS
Prof. O. U. <b>ASIKHIA</b>	DEPUTY VICE CHANCELLOR RESEARCH, INNOVATION, STRATEGY AND ADMINISTRATION
Mr. Mayokun <b>OLUMERU</b>	REGISTRAR
Mr. Adesina <b>ABUBAKRE</b>	BURSAR
Mr. Josiah Ifedayo <b>ADEYOMOYE-</b>	UNIVERSITY LIBRARIAN

## **4.0. ESTABLISHMENT OF THE UNIVERSITY**

### **4.1. BRIEF STORY**

The systematic history of CALEB UNIVERSITY dates back to 1986 when Prince Oladega Adebogun planted the initial seed of nursery and primary school in the heart of the Lagos Mainland. The ever-falling standard in public sector education and the demand of parents for Colleges that will combine high academic standards with true Christian values, energized the impetus to create a thoughtful Nursery, Primary and College. Nudged on constantly by a high commitment to high academic standards through learning methods that make for excellent leadership and brilliant citizenship, Dr. Oladega Adebogun appropriately named his College CALEB, an acronym for Commitment, Academic, Learning, Excellence, and Brilliance.

The College's high academic attainment coupled with the exemplary moral behaviour of the students increased a competitive demand for space by parents who yearn for a secondary institution that will build on the same objectives, ambitions, values and teaching methods whose foundation had been solidly laid in the early years of education at CALEB. This logically and committedly paved the way for the establishment of Caleb International College in Magodo, GRA, Lagos in 1995.

In 1999, application for places at the College reached unprecedented levels. Such positive interest agitated the need for a bigger location as Caleb International College continued the rich tradition of moral and academic excellence. So sometime in 2003, a branch of the College was established in Lekki to cater to parents residing in the Ikoyi, Victoria Island and Lekki axis of Lagos.

To maintain its position as a prime provider of qualitative education and still respond to the industrial demands for staff of truly international standing, the establishment initiated the necessary process for the introduction of a Cambridge O level programme and International General Certificate of Secondary Education (IGCSE) in 2004. Thus, CALEB's position as an international organization became truly recognized in 2004 with its admittance into full membership of International Colleges' Association (ISA). It was at this point that consultations were held which prescribed the need for a befitting university for tertiary education, to round off what Caleb has creditably done for Primary and Secondary Education.

This was with a view to complementing the efforts of government by increasing access to University Education for some of the large population of well-qualified candidates that cannot have places in the existing Universities, particularly in Lagos State with an estimated population of fifteen million people. Dr. Oladega Adebogun also felt deeply concerned about the need to cater adequately at the tertiary level for the moral, spiritual and academic development of prospective students irrespective of their religious leaning, gender, nationality, race or tribe. The envisaged university will address the identified gaps in the tertiary education provision and offer a wider range of programmes that will include those at degree and Postgraduate levels. It will also deliver courses that provide a sufficient blend between academic and practical experiences demanded in industries, using its intensive industrial networks. It will further make a significant contribution towards redressing the issue of over subscription of some of the existing Universities, particularly at a period when satellite campuses are being eradicated.

Thus, having successfully made a notable record in the provision of quality Nursery, Primary, Secondary and Post-Secondary Education, Prince Adebogun felt inspired to also make a worthy contribution to tertiary education through the establishment of a Private University in line with the invitation of the Federal Government of Nigeria through Act no 9 of 1993 to allow Private Corporate bodies or individual Nigerian Citizens to establish and run Universities, subject to meeting approved guidelines.

To the glory of God on May 2, 2007, Caleb University was granted approval by the Federal Executive Council to operate as a private University and the license was presented by the Honourable Minister of Education to the Proprietor on May 17, 2007 at a colourful ceremony held at the Federal Capital Territory, Abuja.

## **5.0. ORGANIZATIONAL STRUCTURE OF THE UNIVERSITY**

The University Law of 2006 is the legal basis of the University. Under this Law, the University consists of the following:

- The Proprietor
- Board of Trustees
- Chancellor
- Council

- Senate
- Congregation
- Convocation
- College Boards
- The Campuses and Colleges of the University
- Other Teaching and Research Units of the University as required.
- Principal Officers
- All Undergraduate and Postgraduate Students
- All persons who are members of the University in accordance with the provision made by statute on their behalf

### **5.1. The Proprietor**

The Proprietor of the University is Caleb International College, a limited liability company incorporated under the Companies and Allied Matters Act 1990, CAP C20 LFN 2004 (now 2020). The Proprietor shall appoint the Board of Trustees for the University as constituted in the Law. The Proprietor shall have other functions as provided for in the Law.

### **5.2. The Board of Trustees**

The Board of Trustees shall be presided over by a Chairman who shall be a respected person of high integrity and renowned for management competence. The Board shall meet at least once in a year for the performance of its functions under the University Law.

### **5.3. Chancellor**

The Chancellor is the Formal Head of the University. He attends the University only on special occasions such as the Convocation ceremony for the conferment of degrees.

### **5.4. Council**

The Council is the Governing Authority of the University. The Governing Council under the Chairmanship of the Pro-Chancellor is responsible for decisions bothering on policies, which have financial implications, general management of the affairs of the University, especially the control of the properties and the expenditure of the University. The Registrar is the Secretary of Council.

### **5.5. Senate**

The Senate is the highest academic body and the ultimate decision making body for all academic matters. The Senate formulates academic policies including the organization and control of all academic activities of the University. It is therefore the function of the Senate to regulate admissions, teaching, and discipline of students and promote research. The Vice Chancellor is the Chairman of the Senate while the Registrar is the Secretary.

### **5.6. Congregation**

The Congregation of Caleb University is made up of the Assembly of graduate members of staff (teaching and non-teaching). The Vice Chancellor is the Chairman of the Congregation. This body stands as forum for the discussion of any University problem bothering on any issue affecting the welfare and interest of the University. The Congregation can make recommendations to Council and Senate on decisions reached at its meetings. The Congregation elects its Secretary.

### **5.7. Convocation**

Convocation is made up of Postgraduate members of staff as well as the Postgraduate Alumni of the University. The Chancellor is the Chairman of Convocation while the Registrar is the Secretary. Convocation has the right-to make re-commendation directly to Council on any matter.

## **6.0. THE COLLEGE OF POST-GRADUATE STUDIES**

The College of Postgraduate Studies is the unit responsible for coordinating Postgraduate studies. The College is headed by a Dean, assisted by a Deputy Dean and a College Administrator. The College is responsible for Postgraduate admissions, registration, orientation, students' records, approval of thesis/dissertation, examination of thesis/dissertations, accommodation for Postgraduate students, processing of applications for government bursaries/grants, approval of results and graduation. The Board of the College of Postgraduate Studies has over- sight responsibility for admissions, approving new Postgraduate programmes, accreditation of faculty to teach Postgraduate level courses and supervise Postgraduate research, approving examiners, examining thesis and dissertations, determining thesis and dissertation results, monitoring and evaluation of performance on Postgraduate programme delivery.

## **6.1. History of the College of Postgraduate Studies**

The origin of the Postgraduate College at Caleb University is traceable to the setting up of a Postgraduate Committee in 2011 under Prof. Akinwande who undertook the preparation of guidelines and modality and it was further extended to Prof. Okedele. Based on the Committee's report, Senate approved the establishment of the Postgraduate College and commenced with the Department of Architecture in the 2014/2015 academic session with (9) nine students under the tutelage of Prof. Olukunle Iyanda as Dean. The Postgraduate regulations underwent extensive revision to reflect new developments and programmes by the Postgraduate College Board which were approved by senate during the 2014/2015 academic session, while the first edition of the Postgraduate Education at Caleb University aims at impacting specialized knowledge and skills leading to the attainment by the student of a high level of expertise in a specific field of Architecture, **Business Administration**, Accounting and Finance, Economics, Mass Communications, and in the core sciences such as Computer Sciences,

These objectives are met through the institution of appropriate mix advanced courses, provisions of excellent research and library facilities, as well as teaching supervision by highly experienced Postgraduate academic staff. In general considerable efforts are being made on a continuous basis by the university to provide a conducive environment for Postgraduate study.

By the academic session of 2021/2022, the National University Commission (NUC) had approved additional Postgraduate courses for the Postgraduate College in Accounting (MPhil/PhD), Finance (MPhil/PhD), Computer Science (PGD, MSc, MPhil/PhD), International Relations (MSc, MPhil/PhD), Mass Communication (MSc, MPhil/PhD), Political Science (MSc), Microbiology (PGD), Chemistry & Biochemistry (MSc), Biological Sciences & Biotechnology (MSc). Political Science (MPhil/PhD)

## **6.2. Administration of the College of Postgraduate Studies**

Activities of the Postgraduate College are guided by regulations approved by senate and supervised by the Postgraduate College Board. Each college has a Postgraduate **C**ommittee chaired by the Dean of the College. While the Head of Department chairs each Department Postgraduate committee.

### **6.2.1 Departments of the COPOS**

- Department of Accounting, Finance & Taxation

- Department of Architecture
- Department of Chemistry & Biochemistry
- Department of Biological Science and Biotechnology
- Department of Business Administration
- Department of Computer Science
- Department of Economics
- Department of Mass Communication
- Department of Political Science & International Relations

#### **7.0. College of Postgraduate Studies-Officials**

- Dean
- Deputy Dean,
- College Administrator/Administrative Secretary
- Confidential Secretary to the Dean
- Clerical Officer

#### **7.1. Members of the Board of College of Postgraduate Studies**

- Dean, College of Postgraduate Studies - Chairman

#### **MEMBERS**

- University Librarian
- Deputy Dean, College of Postgraduate Studies
- Dean, Caleb Business School
- Deputy Dean, Caleb Business School
- Dean, College of Arts, Social & Management Sciences
- Deputy Dean, College of Social & Management Sciences
- Dean, College of Pure & Applied Sciences
- Deputy Dean, College of Pure & Applied Sciences
- Dean, College of Environmental Sciences & Management
- Deputy Dean, College of Environmental Sciences & Management
- Dean, College of Law
- Deputy Dean, College of Law

- Director, Academic Planning
- Director, Quality Assurance
- Head of Department Accounting, Finance & Taxation
- Head of Department Biochemistry
- Head of Department Biological Science and Biotechnology
- Head of Department, Economics
- Head of Department, Mass Communication
- Head of Department, Computer Science
- Head of Department, Business Administration
- Head of Department, Political Science & International Relations
- Coordinator, Accounting, Finance& Taxation
- Coordinator, Architecture
- Coordinator, Biochemistry
- PG Coordinator, Biological Science and Biotechnology
- PG Coordinator, Business Administration
- PG Coordinator, Computer Science
- PG Coordinator, Economics
- PG Coordinator, Mass Communication
- PG Coordinator Political Science & International Relation
- GST Coordinator
- College Administrator-Secretary

## **7.2. Departmental Admission Committee**

Compliance with admission requirements is to be certified by the Deanship of the College of Postgraduate Studies before final approval is given for admissions. The Deanship of the College of Postgraduate Studies will certify and ratify all recommendations for admission into the College of Postgraduate Studies from the **Departments** and Colleges. A Departmental Admission Committee (DAC) is to be chaired by an academic staff of the Rank of Senior Lecturer and above. In a situation where these ranks are not available in a department, a Lecturer 1 may chair such committee

- Recommend to the PG College through the Head of Department candidates qualified to be admitted into Postgraduate programme(s) of the department

## **8.0. GENERAL REGULATIONS GOVERNING POSTGRADUATE ADMISSIONS**

Admission is open to all qualified candidates irrespective of gender, race, religion, and political leaning. All candidates applying for admission into any course must possess a minimum of (Five) 5 'O' Level credit passes at one or two sittings at most. Two of the credit passes must be in English Language and Mathematics and any other three as may be specified in the Regulations for admission into the respective Colleges/Departments. Candidates applying for Master's Degree/MPhil and Ph.D. Degree Programmes must possess appropriate degree qualifications.

### **SHOULD WE SPECIFY THAT O LEVEL CREDIT PASSES IS NOT APPLICABLE TO STUDENTS SEEKING ADMISSION TO Mphil/PHD?**

A Bachelor's degree qualification as deemed fit for each programme but not less than a Second Class lower degree or a Postgraduate Diploma as appropriate and as determined from time to time by the Board of the College of Postgraduate Studies in the case of Master's degree programmes and acceptable postgraduate degrees in the case of the MPhil/Ph.D. programmes.

At the time of registration, each candidate will be required to present **on demand**, the originals of the certificate or any other acceptable evidence of the qualifications on the basis of which **his** offer of admission has been made. If at any point in time, a candidate does not possess any of the qualifications which he claims to have acquired, his/her admission will be withdrawn from the University. Students shall on admission, pay to the University, the fees prescribed by the University.

### **I THINK WE SHOULD DELETE ON DEMAND**

## **8.1 Departmental Postgraduate Studies Committee**

Each academic Unit shall set up a Departmental Postgraduate Studies Committee (DPSC) to consist majorly of senior academics of the cadre of Senior Lecturers and above and should be holders of Ph.D. among the teaching faculty in the department. The functions of the Committee shall be to:

- Advise the students in the selection of courses and formulation of thesis areas and titles, and dissertation titles.
- Recommend thesis/dissertation supervisors.
- Submit at the end of each semester progress report on each student to the Board of Postgraduate Studies through the Head of the academic unit.
- Keep under review and make proposals for the overall development of Postgraduate programmes in the Department.
- Ensure the timely submission of dissertation/thesis areas and titles through the Head of the academic unit to the College Board.

Except where there is no Professorial Rank in the College, the Postgraduate Studies Committees shall be chaired by a fulltime faculty of professorial rank from the academic unit.

## **8.2. Updates and Reviews of Handbook**

The College of Postgraduate Studies will communicate amendments and changes to the Handbook to students and all stakeholders using acceptable means at any time such changes are being made.

## **8.3. Transfer of Candidate**

Transferring candidates from other Universities shall be required to hold the minimum qualifications for entry into Caleb University. Application form for admission by such student is obtainable from the Academic Office of the Registry on the payment of the prescribed fee.

## **9.0. REGISTRATION AND ORIENTATION UPDATE WITH SOP ON REGISTRATION**

**The University requires all fresh students to report at least one week commencement of the academic year to go through a process of registration and orientation.** Orientation is compulsory for all fresh students with the exception of Caleb University alumni. Registration also takes place at the same period, concurrently with orientation. **All students must register every semester for courses prescribed by their academic unit(s) within the specified period set aside for registration through the self-help-on-line registration facility and submit proof of registration to the College of Postgraduate Studies and the relevant department.** Except with the express written approval of the Vice-Chancellor, no student is

permitted to register for more than one programme at the same time within or outside the University. The sanction for such an offence shall be the cancellation of the University registration or loss of studentship. A penalty as may be determined by the Academic Board from time to time shall be imposed on any student who fails to register during the normal time stipulated for registration by the University. A student who fails to register during the registration period specified shall forfeit his/her right to register for the semester. No student shall be permitted to register by proxy. The registration of those involved (the agent and potential beneficiary) shall be nullified. This means that they cannot pursue studies for that academic year. The University reserves the right to prosecute agents who are not students of Caleb University.

**I THINK WE SHOULD DELETE The University requires all fresh students to report at least one week commencement of the academic year to go through a process of registration and orientation.**

#### **9.1. Acquisition of Academic and Research Materials by Students at the Point of Registration**

At the point of registration for programmes, candidates are mandated to acquire existing Journals, Books, periodicals, proceedings and other such publications prescribed by the College of Postgraduate Studies as being relevant to the Programme for which the candidate is registering.

#### **10.0. DURATION of STUDY PROGRAMMES**

##### **Duration of Programmes**

The following shall normally be the duration for the completion of Postgraduate degrees:-

- |    |                              |   |                |
|----|------------------------------|---|----------------|
| 1. | Postgraduate Diploma (PGD)   | – | Two Semesters  |
| 2. | Masters of Science (M.Sc.)   | - | Four Semesters |
| 3. | Doctor of Philosophy (Ph.D.) | - | 6 Semesters    |

### **10.1. Extension of Registration**

Four (4) weeks to the expiry of the normal period for a Postgraduate programme, a student who has still not been able to complete the programme may apply for extension of studentship and may be granted approval for periods not exceeding the following:

Masters Degree Programmes - Two semesters

Ph.D. Degree Programmes - Four semesters

There shall be no further extension of time beyond the above durations. Applications for extension must be supported by duly endorsed progress reports and a recommendation from the supervisor and Head of Department.

### **10.2. Interruption of Study Programme**

A student registered for the Postgraduate programme shall not break his/her programme of study for more than two semesters. This means that a student may interrupt his/her study programme for two semesters only.

All interruptions must be by express written permission from the Dean College of Postgraduate Studies. A student shall apply at least four weeks in advance to the Dean College of Postgraduate Studies through the Head of Department stating reasons why he/she wants to interrupt his/her study programme. The student shall obtain written permission from the Dean of the Postgraduate College before he/she leaves the University. The Dean College of Postgraduate Studies in giving approval, may consult with the Dean of the appropriate College and Head of the domiciled department where necessary. Interruption of programme is permissible on health grounds if it is supported by a medical report. The report will require certification by the Director of Health Services of Caleb University. A student who breaks his/her studies without permission for more than two continuous semesters shall be deemed to have lost his/her studentship. A student who does not go through the approved procedures before interrupting his/her studies shall be deemed to have abandoned his/her studentship. Subsequently, such a student shall be withdrawn from his/her registered programme and be notified accordingly by the College of Postgraduate Studies.

## **11.0. DEFERMENT of ADMISSION and APPLICATION FOR RE-ADMISSION**

### **Deferment of Admissions**

Deferment of admission shall not be entertained unless the candidate has fully satisfied the College and Departmental requirements for registration, paid all the necessary prescribed fees and has a cogent reason for deferment.

Application for such deferment shall be forwarded to the College Administrator on behalf of the Registrar, not later than the middle of the Semester.

### **11.1. Loss of Studentship Resulting from Interruption of Study**

A student who loses his/her studentship may be allowed to apply for re-admission to the University. The grades earned on previous programme may be waived and shall count towards the current studentship.

### **11.2. Failure in Thesis/Dissertation/Long Essay/Project Work**

Where a student's thesis/dissertation, long essay/project work is declared a failure, the candidate may be allowed to apply for re-admission to his/her programme within a period not exceeding two(2) semesters in the case of Masters Degree and equivalent programmes, and four (4) semesters in the case of Ph.D candidates from the date of the examination.

- I. Where a student satisfies the course work requirements of his/her programme but fails the research component, the student may be granted a waiver of coursework.
- II. Such an application shall be referred to the relevant Head of Department for comments and if recommended by the Department for re-admission, the candidate shall be re-admitted to repeat the thesis/dissertation, or long essay/project work component of his/her programme for the following durations:
  - a) One semester (1) in the case of MSc and equivalent programmes.
  - b) Two (2) semesters in the case of Ph.D. and equivalent programmes.

Such re-application must be made by completing the appropriate Postgraduate application form during the normal admissions season only and shall be considered for admission at the next intake. There shall be only one opportunity for application for re-admission.

### **11.3. Lapsed Studentship**

Where a candidate fails to complete a thesis/dissertation or long essay/project work within the required period including extension, the studentship of such a candidate shall be deemed to have lapsed and dissertation or thesis cannot be submitted.

The candidate may wish to apply for re-admission in line with the procedure outlined in the case of a candidate who failed the research component of his/her programme. Only candidates who have satisfied all course work requirements shall be considered for re-admission.

### **11.4. Transfer of Credits**

A candidate who completes part of the course work in another University may be offered admission on the basis of credits to Caleb University, provided:

- i. The contents of such programmes are deemed comparable and satisfy the course requirements of the Department and College in which he/she seeks to pursue his/her studies.
- ii. The candidate shall take any additional courses as may be required by the Department and College.
- iii. Such transfers may be considered only after admission of the student into programme.

## **12.0. STRUCTURE OF PROGRAMMES AND COURSE UNIT REQUIREMENTS**

### **12.1. Course Credits**

One (1) course credit shall be defined as one hour lecture, or one hour tutorial, or one practical session (of 3 hours), or three hours of field work, per week for a semester in line with general University policy. No Postgraduate taught course shall be more than four (4) credit hours.

### **12.2. Coding and Numbering of Courses**

All Postgraduate degree courses shall have letter and number codes beginning with three alphabets signifying a Department or programme/subject, followed by a three-digit number in the ranges 700-799 for PGD, 800-899 for Master's Degree Programmes and 900-999 for PhD programmes.

The third digit in the number code shall be:

- zero (0), for a course that is offered in both semesters,
- odd (1, 3, 5, 7, or 9) for a course offered in the first semester,
- even (2, 4, 6, or 8) for a course offered in the second semester

### **12.3. Minimum and Maximum Course Work Load per Semester**

### **12.4. Full-Time Study**

A full-time student shall carry a minimum coursework load of 12 credits and a maximum of 18 credits per semester. In exceptional cases, candidates may be allowed to exceed up to 4 extra credits where written permission has been granted by the Board of Postgraduate Studies.

The following are the options available to academic units and the minimum and maximum credits required of a registered student to Postgraduate are as follows:

### **12.5. Four Semesters Masters Degree Programmes**

Coursework	-	27-81 (12-18 credits per semester)
Seminar	-	3 credits
Dissertation	-	6 credits
Total	-	33-87 credits

### **12.6. Ph.D. Programmes**

Coursework Load – Minimum of 12 Credits

All categories of postgraduate programmes offered shall offer a course in Research Methodology. Special Topics courses with six (3) credits shall also be taken for programmes in the Sciences and as may be applicable and deemed fit by other departments.

**In all cases, the total credits shall not exceed 65 credits.**

### **13.0. TEACHING and SUPERVISION at POSTGRADUATE LEVEL**

### **13.1. Appointment of Teaching Faculty**

Teaching faculty for Postgraduate courses shall normally be Ph.D. holders or faculty of Senior Lecturer to Professorial rank. For this purpose, the Head of Department shall submit the names and highest qualification of faculty for teaching at Postgraduate level and submit the list to the Board of Postgraduate Studies for approval through the appropriate College Board.

### **13.2. Appointment of Supervisors**

A Supervisor must have taught or carried out research in a university or an equivalent institution and must have a record of research work and publications. All supervisors shall be accredited by the Board of Postgraduate Studies. For this purpose, a form for accreditation of supervisors shall be completed by the prospective supervisor, endorsed by the Head of Department and submitted through the appropriate College Board to the Board of Postgraduate Studies for approval.

### **13.3. Assignment of Supervisors**

A Supervisor(s) shall be required for every Postgraduate student undertaking thesis/dissertation or long essay/project work in all academic units of the University. A supervisor from the department, a relevant academic unit or research institute, another University or research institute maybe appointed to be on the supervisory committee.

The lead supervisor shall be from Caleb University and shall normally not serve as lead supervisor for more than ten (10) students. An adjunct teaching on the Postgraduate Programme can be appointed as a Co-Supervisor.

Lead supervisors shall be appointed by the **departmental Postgraduate Studies Committee (DPSC)**. A Faculty member pursuing a Postgraduate degree programme at Caleb University shall not supervise other Postgraduate students' theses or dissertations.

### **13.4. Supervisory Committee**

The number of Supervisors shall normally be as follows:

Ph.D. Thesis & Master's Degree Dissertation-Two (2) Supervisors

There shall be a lead supervisor who shall be the coordinator for the supervisory team. The Lead Supervisor shall be of at least Senior Lecturer status and/or shall hold a degree that is higher than that for which the supervised student is enrolled.

It shall be the duty of the Lead Supervisor to convene supervisory committee meeting at least twice in a semester. The Lead Supervisor must submit a completed progress report form to the Dean of the College of Postgraduate Studies through the Head of Department at the end of every semester.

The number of Supervisors for a Postgraduate Diploma Long Essay shall normally be One (1):

### **13.5. Prescribed Fees**

As a private fee-paying institution, all students are expected to pay prescribed fees for all services to be provided by the University which are structured to include:

- Registration;
- Tuition;
- Accommodation;
- Library;
- Practical Health care;
- Games and Sports; and
- Examination Assessment
- Others as may be applicable from time to time.

To be considered as students of the University, students must pay all prescribed fees. All payments are to be paid to CALEB University, Lagos. Students shall be issued receipts for all payments made. Clearance cards shall be issued to students on full payment of stipulated fees for each session. Students should ensure safe custody of their receipts and clearance cards.

### **14.0. UNIVERSITY EXAMINATIONS INSTRUCTIONS TO CANDIDATES**

Extracts from Regulations Governing University Examinations:

A candidate for a University Examination must have followed the approved course as a regular student over the required period, and must have registered for the examination.

Entry to the Examination shall be by registration on a form on which the papers to be written shall be indicated by the title. The Registration Form duly endorsed by the Head(s) of Department shall be submitted to the Academic Affairs Directorate not later than six weeks before the commencement of the Semester Examination.

A candidate shall not be admitted to a University Examination if:

- i. He has not been registered for it.
- ii. The subject of the Examination has merely been audited unless the course had been followed previously;
- iii. He owes fees to the University/Hall;
- iv. Is under suspension or has been dismissed from the University.

It shall be the duty of the candidate to consult the daily time-table (to be made available at least 24 hours ahead of time) to ascertain the papers to be written each day and to make himself available at the appointed place at least one-half hours before the examination.

A candidate may be refused admission to a University Examination if he/she reports to the Examination more than half an hour after its commencement.

It shall be the responsibility of the candidate to provide for himself/herself a pen, pencil and an eraser as needed. It is also his/her responsibility to ensure that he/she is given the right question paper and other material needed for the examination.

An examination candidate shall not bring to the Examination Centre or to the washroom of the Examination Centre or in the immediate vicinity of the Examination Centre any book, paper or written information or Cellular/Mobile phones or other unauthorized material. Any such material shall not be deposited at the entrance to the Examination Room or the Washroom or in the immediate vicinity of the Examination Centre. No student shall enter the Examination Room until he/she is invited or called and/or requested to enter the Examination Room.

Any candidate who is seen with lecture notes or books or Cellular/Mobile phones or any unauthorised material in the Examination Centre or in the immediate vicinity of the Examination Centre before the commencement of the examination shall be deemed to have committed an offence, and shall be banned from the examination and awarded a grade X.

A candidate shall uphold the highest standard of civility and courtesy in an examination centre. A candidate who flouts the instruction(s) of a Chief Invigilator or Invigilator or misconducts himself/herself in any manner to an examination official at an examination centre commits an offence. Such candidate shall be banned from the examination and awarded a grade X.

A candidate who is suspected of hiding unauthorized material on him/her person may be asked by the invigilator to submit to a body search. Refusal to submit to a body search is tantamount to mis conduct. An examination candidate shall, for the purpose of identification by the Chief Invigilator/Invigilator, carry on him/her his/her student identity card on the examination table to enable the invigilator ascertain the identity of the person writing the examination. The Chief Invigilator shall reserve the right to refuse any candidate without an identity card entry to the Examination.

Communication between candidates is **not** permitted in the examination hall.

Candidates shall not pass or attempt to pass information or instrument from one to another during an examination;

- i. A candidate shall not copy or attempt to copy from another candidate or engage in any similar activity;
- ii. A candidate shall not disturb or distract any other candidate during an examination; and
- iii. A Candidate may attract the attention of the Invigilator by raising his/her hand.

Smoking or drinking of alcoholic beverages is not allowed in the Examination Room.

Candidates may leave the examination room temporarily, and only with the express permission of the Invigilator. In such cases the invigilator will be required to satisfy himself that a candidate does not carry on his/her person any unauthorized material. A candidate who is allowed to leave the Examination Room temporarily will be accompanied while outside the examination room by an attendant designated by the Invigilator.

A candidate who finishes an examination ahead of time may leave the Examination Hall/Room after surrendering his/her answer booklet(s). The candidate shall not be allowed to return to the Examination Room, once he leaves.

At the end of each examination, candidates should ensure that they do not take away any answer books, whether used or unused, from the Hall.

Candidates should not in any way interfere with the stapling in the answer books. Any complaints about the answer books should be brought to the attention of the Invigilator.

A candidate who fails to present himself at an examination without satisfactory reason shall be awarded a grade X. The award of grade X in a required paper shall mean failure not just in that

paper but in the examination as a whole. The following shall not normally be accepted as reasons for being absent from any paper at a University Examination:

- i. mis-reading the examination time-table;
- ii. forgetting the date or time of examination;
- iii. inability to locate the examination hall;
- iv. inability to rouse oneself from sleep in time for the examination;
- v. failure to find transport;

A breach of any of the foregoing regulations made for the conduct of University Examinations may attract one or more of the following sanctions:

- i. a reprimand;
- ii. loss of marks;
- iii. cancellation of a paper (in which case zero shall be substituted for the mark earned);
- iv. withholding of results for a period;
- v. award of grade X.

Results of University Examinations shall be posted by the University using acceptable means – Portal/Notice Board. It shall be the responsibility of the candidate to consult the University Notice Board for the result of any examination taken. Alternatively he/she may write to the Deputy Registrar (Academic Affairs) to enquire about his/her results or request details of such results for which purpose he may provide a stamped addressed envelope.

A candidate who is not satisfied with the results of a University Examination affecting him/her may request a review by submission of an application to the Registrar and payment of a review fee which shall be determined at not less than three times the normal Examination Fee.

An application for a review shall be submitted to the Registrar not later than 21days after release of the said results and shall state the grounds for review.

An application entered on a candidate's behalf by a person other than the aggrieved Candidate himself shall not be entertained.

No action shall be taken on an application which is submitted outside the time stipulated.

Review shall not proceed unless the Review Fee is fully paid.

The Board of Examiners may authorize the Registrar to amend the results as released in the light of the review.

If it emerges that a complaint is frivolous or ill-motivated, the Board may prescribe further sanctions which may include barring the complainant from taking a University Examination for a stated period or an indefinite period.

## **15.0. Rules And Regulations Governing the Conduct of Examination in Caleb University**

The following rules and regulations about the conduct of examinations apply throughout Caleb University. They are reproduced here for emphasis and students are advised to read the rules and regulations carefully as students are expected to adhere strictly to these rules and regulations.

### **General Rules and Regulations**

1. A course is normally examined in the semester it is taught. All duly registered students for a course must take the examination set on the course at the end of the semester.
2. A student who fails to attend up to 80 % of the lectures or practical exercises in any course is not eligible to sit the examination in the course.
3. A student on rustication is not eligible to take the examination in the course.
4. A student who has been absent from the University for the major part of a semester without official notification and permission is deemed by Senate to have withdrawn from the University and cannot normally take examinations in the courses taught in the semester.
5. The Department offering a course to be examined shall publish the list of students eligible to sit the examination at least two weeks before the date of the examination on the Departmental Notice Board on the University Portal. The published list will be used to produce an Attendance List for the examination.
6. Only students whose names appear on the attendance list will be admitted to the examination hall and would be expected to carry their University Identity Cards for inspection on demand.
7. The attendance list will also be used for sitting arrangements as the Chief Invigilator deems fit. Candidates are expected to adhere strictly to the seating arrangements and

should not, under any circumstances, change the arrangement established by the invigilators.

8. Students must Present themselves punctually at the time scheduled for their papers. No student shall be allowed to enter an examination hall earlier than ten (10) minutes before the commencement of the examination. Misreading of Examination Time-Table is not an acceptable excuse for lateness to examination halls and, students who arrive thirty (30) minutes after an examination has started, shall be admitted only at the discretion of the Chief Invigilator. Such student(s) shall not be given extra time and they shall be given a written reprimand by the Academic Office to which that lateness shall be reported in writing by the Chief Invigilator (on the Lateness to Examination Form provided)
9. Students must bring with them to the examination hall their ball pen, pencils, rulers, erasers and any materials which may be permitted for use during the examination.
10. Candidates are however not allowed to bring any books or papers into the examination centre except those that may be permitted or provided by the Department responsible for the examination being held.
11. Students are warned in their interests to ensure that lecture notes, textbooks, jotters, bags or any other unauthorized materials or aids etc. are not brought into the examination hall.
12. The invigilator may search students before they are allowed into the examination hall.
13. Students are NOT ALLOWED to have GSM or equivalent handset in the examination hall. While any examination is in progress, no handset should therefore be found on any candidate.
14. Communication of any kind between candidates is strictly forbidden during the examination. Any Student found to be giving or receiving irregular assistance shall face disciplinary action.
15. Silence must be observed in the examination hall. The only permissible way of attracting the attention of the invigilator is for the Student to raise his/her hand.
16. The use of scrap paper is not permitted. Rough work must be done in the answer booklets, crossed neatly through and submitted along with the answers script.
17. Students offering mathematics and similar courses must bring their own mathematical or drawing instruments.
18. Personal copies of Mathematical Tables will not be allowed in examination halls (see regulations 24 - 31 on the use of calculators).

19. Students must use their matriculation numbers for the examination and not names.
20. Before handing in their answer scripts at the end of the examination, students must satisfy themselves that they have inserted, at the appropriate places, their Matriculation Numbers and the numbers of the question answered.
21. Students shall not normally be permitted to leave the examination hall during the first and last 30 minutes of any examination.
22. At the end of an examination, students must remain seated while invigilators go from row to row to collect answer scripts.
23. Students are required to sign against their matriculation numbers on the attendance register at the beginning of the examination, and when submitting the answer script

### **The use of calculators**

24. For examinations in certain courses, the use of electronic calculators is permitted but the calculators must be non-programmable. Only one calculator shall be allowed per student. Electronic organizers are not permitted.
25. The calculator must be small (hand-held), and battery-operated.
26. A student must not borrow another student's calculator during an examination.
27. The responsibility for the correct operation of the calculator rests with the Student alone.
28. Instruction manuals, calculator packets and containers are forbidden in the examination halls.
29. The calculator must be switched off on entry into the examination room and can only be turned on when ready to be used.
30. Students shall declare their calculators and make them available for inspection by invigilators on entry into the examination hall.
31. Contravention of any of these regulations shall constitute examination malpractice or misconduct.

### **Eligibility For Examinations**

All students who are dully registered for Courses in a given semester are eligible to sit for examinations in those Courses. However, those who belong to the under-listed categories are not eligible to sit for examination:

- a. A student who has not paid in full the school fees and other University approved levies.

- b. A student who absents himself/herself from the University for more than 20% of the stipulated lecture/practical periods in any Semester without official permission. Such a student shall normally be deemed to have voluntarily withdrawn from the University.
- c. A student on suspension from the University for one reason or the other

### **Absence From Examinations**

- i. Students must present themselves at University Examinations for Courses for which they have registered under these regulations. Students, who fail to do so for reasons other than illness or accident, shall normally be deemed to have failed the Course(s) or the entire examinations as the case may be.
- ii. Absence from an entire semester's examinations or as much as 80 per cent of the examinations without any legitimate reason, shall be recorded as a failure for the student and will earn him or her an extra semester.
- iii. Any student who, on account of illness/accident, is absent from University examinations or part thereof, shall be required to do the following to avoid a failure being recorded for him or her:
  - a. Report the illness/accident to the Registrar; and attach a Medical report within forty-eight hours of the absence, for the validation of the claims made by such a student.
  - b. Such a student shall be expected to register for and take the Course or examinations at the next available opportunity, i.e. the next Semester in which the Course(s) is/are on offer.
  - c. Where a student, on account of illness or accident, misses an entire semester's examination or more than 50 per cent of the examinations, he or she shall be required to spend an extra semester to make up for the absence, before graduation.

### **Conduct Of Examinations**

#### **Invigilation**

- a. **Appointment of Chief Invigilators/Invigilators**

A list of all academic members of staff in each Department shall be prepared by each College Officer (in consultation with the relevant Head of Department) at the beginning of each semester. The list shall be updated from time to time to include new members of staff.

The College Officer shall forward the list to the sub-Dean who shall prepare the invigilation schedule in such a way that for every examination room, there shall be a Chief invigilator who shall ordinarily not be of a lesser status than a Lecturer I, and at least one invigilator for every one hundred (100) students. Invigilators: students' ratio shall be employed to work out the number of invigilators required for examination halls having more than 100 students.

**b. Duties of a Chief Invigilator**

The Chief Invigilator assigned to each examination room shall:

- i. Report to the examination hall at least 30 minutes before the commencement of the examination and ensure that the room is ready for the use of the students.
- ii. Be responsible for the conduct of all the examinations put under his/her care at any particular examination room/hall.
- iii. Ensure that the sitting arrangement in the examination hall is either according to the number of groups taking examinations at each particular time or the discretion of the invigilators who shall ensure the disruptions of organized sitting arrangements by students;
- iv. Collect from the Dean or HOD the question papers in sealed packets/envelopes at least half an hour before the examination is due to start. Each of the packets/envelopes of question papers must be held up and shown to the students and opened in their presence at the time appointed for the commencement of the examination in the hall where the packets of examination belong.
- v. Allow the examiner into the examination hall for as long as may be necessary for the first thirty (30) minutes of the examination to correct possible errors in the question papers or clarify any doubts in connection with the question paper. In case of doubt, reference shall be made to the Chief Examiner in the subject.

- vi. Ensure that students are properly checked into the examination hall and be satisfied that no student smuggles notes or unauthorized materials into the examination hall. Students shall not be allowed into the examination hall earlier than ten (10) minutes before or 30 minutes after the commencement of an examination.
- vii. Ensure that invigilators exercise constant and vigilant supervision over the students. While the examination is in progress, no person(s) other than the Principal Officers, Deans, Heads of Department, DR (A), the Chief Invigilators, the Office Assistants, and the Medical Officer (or his representatives), shall be allowed into the examination hall. The Examiner in each paper shall however enter during the first thirty minutes of the examination and/or such other time(s) as may be required.
- viii. Ensure (with the assistance of the invigilators) that the Attendance Sheet is duly signed in triplicates by each student and countersigned by the Chief Invigilator.
- ix. Ensure that silence is maintained by the students throughout the period of the examination. The only permissible way of attracting the attention of the invigilator shall be by a show of hand.
- x. Notify students of the time, thirty minutes and five minutes before the close of each examination;
- xi. Arrange, with the assistance of an invigilator or Examination Assistant/Attendant to send any student who falls sick during the examination to the clinic for treatment and submit a report (Using the prescribed form) to the Sub-Dean on the incident;
- xii. At the close of an examination, coordinate the collection of examination scripts from the students by invigilators. Invigilators shall move from row to row collecting the scripts from the students and on no condition shall students be allowed to stand up or leave the hall while their scripts are lying on their desks. The Chief Invigilator, with the assistance of other Invigilators, shall check the students' scripts against the signed. Attendance sheet, in triplicate, for each examination. He/she shall then seal the script together with a copy of the

Attendance Sheet and at least four copies of the question papers and deliver them to the HOD/Representative who shall be made to sign for the scripts collected on the prescribed form, immediately after the examination.

- xiii. Chief Invigilators and other invigilators shall maintain constant vigilance throughout the examination session in which they are in attendance. They shall consider any misconduct or irregularity that may be brought to their notice in connection with an examination and shall send a report of each case within 24 hours, to the Vice-Chancellor (through the Dean of the College) with a copy to the Registrar and the Head of the Examination Committee in respect of the paper of which the misconduct took place. A Chief Invigilator/Invigilator that so wishes may send an advance copy of such a report to the Vice-Chancellor.
- xiv. Take record of the participation and conduct of all Invigilators and Assistants under him for onward transmission to the Dean after the examination; invite the attention of University Security or Personnel to an examination hall if his/her opinion becomes necessary;
- xv. Ensure that students sign the Attendance Sheet in triplicate; a copy to be included in the scripts' envelope, another copy submitted to the Dean, and the third to the Academic Office in the Registry. The Academic Office is expected to collect its copy just before the end of an examination;
- xviii. Ensure that the period allowed for each course being examined is put on the chalk/whiteboard, to guide the students.

### **Disciplinary Action against Erring Invigilators**

The university holds examination as sacrosanct and an exercise that must be appropriately administered and invigilated. It expects every academic staff to be involved in the invigilation exercise.

It shall also be an offence for any invigilator to handle the invigilation exercise in a manner that may compromise the integrity of the examination.

Absence from or lateness to examination-halls by scheduled Invigilators without official permission or reasonable excuse shall be treated as serious misconduct and shall attract appropriate disciplinary action.

A report of such absence or lateness and general misconduct shall be made by the Chief Invigilator to the Dean of the College, who will in turn, forward same to the Vice-Chancellor for necessary disciplinary action. The Vice-Chancellor's Monitoring Teams which shall be set up by the Vice-Chancellor to undertake general monitoring of all examinations shall also be expected to make their observations in this regard available to the Vice-Chancellor from time to time.

### **Handling of Answer Booklets:**

- i. Every College must ensure that all answer sheets for examinations carry the Departmental stamp and date of the examination. Any extra sheets to be given out must also be stamped as well.
- ii. Answer booklets are security materials and it shall be an offence for anyone, whether staff or student, to put them to other use than they are meant for. Under no circumstance shall a student have an answer booklet other than the one officially handed over to him for an examination and which shall be submitted to the invigilator after such an examination.
- iii. Invigilators must ensure that students write their matriculation numbers clearly on the answer booklets before the commencement of the examinations to prevent swapping of booklets during and after the examination.

### **Instruction to Students**

#### **a. Specific**

Students shall:

- i. Use or consult, during an examination, only such books, papers instruments or other materials or aids as are specifically permitted or provided for the examination being held.

- ii. Not introduce or attempt to introduce into the examination hall handbags, books, notes, jotters, instruments, or other materials or aids that are not authorized by the invigilator.
- iii. Not enter any examination hall with any inscription on any part of the body, e.g. palm, arm, thigh, etc, especially if such inscriptions bear any relevance to the examination.
- iv. Not pass or attempt to pass any information from one person to another during an examination.
- v. Not act in collusion with any other student(s) or person(s), or copy, or attempt to copy, from other students, during an examination.
- vi. Not disturb or distract any other student(s) or an invigilator during an examination;
- vii. Not use or engage other people to sit for any University examination on their behalf.
- viii. Obey invigilators' instructions to ensure smooth conduct of the examination, enter examination-halls with their ID cards and their Clearance Form from the Bursary.

Failure to observe any of these rules (a) to (h) above, shall, *prima facie*, constitute examination misconduct, which shall attract appropriate disciplinary measures.

### **Examination misconducts & malpractices**

53. The following acts, *inter alia*, on the part of a candidate, shall be construed as examination misconduct/malpractice:

- a. Possession of question papers before examination/test or attempt to do so.
- b. Swapping or attempt thereof of the answer before, during or after examination/test.
- c. Bringing into the examination hall, any unauthorized pieces of paper whatsoever.
- d. Tattooing: Inscription of answers, hints or codes thereof on any part of the candidate's body/dress, or in any other manner whatsoever.
- e. Passing information from one candidate to another in the examination hall.

- f. Seeking or soliciting any assistance whatsoever from any other student or any other unauthorized person in the examination hall.
  - g. Any disorderly conduct before, during or after any examination or test.
  - h. Pre-arranged sitting pattern by any student or group of students in the examination hall to facilitate the unauthorized exchange of information.
  - i. One candidate arranging with another person to write an examination shall be summarily dismissed.
  - j. Unauthorized possession of used or un-used answer book or sheet.
54. In any case of examination misconduct, the Chief Invigilator shall require the student(s) concerned to write and sign a statement on the incidence, and allow the student(s) to proceed with the examination.
55. Any evidence or exhibit incriminating the candidate(s) shall be preserved by the chief invigilator who shall report such cases to the College Dean, Head of Department and the Chief Examiner concerned within 24 hours.
56. The case shall be reported promptly to the Students' Disciplinary Committee (SDC) for investigation. If the candidate is found guilty, Senate shall mete out the appropriate discipline on the recommendation of the SDC.

### **15.1. Examination Misconduct or Offence**

Examination offences shall be understood to include any attempt on the part of a candidate to gain an unfair advantage, and any breach of the Examination Regulations and Instructions to candidates including refusal on the part of a candidate to occupy an assigned place in an Examination Room, any form of communication with another candidate, possession of a book, paper or written information of any kind except as required by the rules of a particular examination, smoking, leaving an Examination Room without permission of the Invigilator, or refusal to follow instructions.

The Chief Invigilator or any examiner shall report to the Registrar as soon as practicable any instance of a breach of Examination Regulations. In respect of offences occurring outside the precincts of an Examination Room, the Dean shall cause an enquiry to be made into any reports that reach him and submit his findings to the Registrar.

The Board of Examiners shall review all reports received in connection with an examination malpractice or an offence. On the basis of its review, the Board of Examiners may impose a

sanction involving loss of marks in a particular paper. A grade “Z” shall be awarded whenever it is established that a candidate had attempted to gain an unfair advantage in an examination be it in a Principal Subject or an Ancillary or any other paper or has failed to conduct himself or herself properly in an examination. Such a candidate may be debarred from taking a University Examination for a stated period or indefinitely or expelled from the University.

In all instances of examination malpractices or offences a formal report shall be made to the Academic Board as soon as practicable. The Academic Board may review all such reported cases and may vary the sanctions as it thinks fit.

### **Penalties For Examination Misconduct**

Any student found to be involved in an examination malpractice/misconduct shall have imposed on him/her the sanctions relating to the nature/type of offence(s) committed as indicated below. Where a particular form of examination misconduct not listed is established against a student, he/she shall have imposed on him/her such nature of sanction(s) that the Students, Disciplinary Committee (SDC) may consider necessary.

<b>S/N</b>	<b>Examination Offence</b>	<b>Penalty</b>
1	Non-display of identify Card	Strong Reprimand
2	Refusal to display Identity Card	Rustication for one semester
3	Entering the examination hall after the first 30 minutes	Strong Reprimand
4	Smoking in an examination hall	Rustication for one semester
5	Noise making during an examination	Strong Reprimand
6	Refusal to submit oneself for search by an invigilator of the same sex	Rustication for one semester
7	Possession of scrap paper in the examination hall	Rustication for one semester

8	Possession of University examination question paper or answer sheet prior to the examination	Rustication for one semester
9	Mutilation or removal of any paper or answer script supplied	Rustication for one semester
10	Failure to submit answer script to the invigilator after an examination	Rustication for one semester.
11	Oral communication between students in the hall/room during an examination	Strong Reprimand
12	Communication involving the passing of notes or other accessories to aid performance in an examination hall	Rustication for semester
13	Possession and use of any material such as notes, scrap etc. to aid performance in an exam hall.	Rustication for two semesters

## **16.0. APPROVAL of THESIS/ DISSERTATION TITLES and EXAMINATIONS**

Approval of thesis/dissertation areas and supervisors shall be by the Department Board. Masters dissertation areas and names with addresses of supervisors shall then be submitted to the College of Postgraduate for final approval before the end of the first semester.

Ph.D. Thesis/Masters dissertation titles, names and addresses of supervisors and full contact details (address, email and telephone numbers) of examiners shall be submitted to the Board of the College of Postgraduate Studies at the beginning of the second semester through the relevant College Board/ Committee.

### **16.1. Oral Defence/Voice Viva for Thesis/Dissertations**

All postgraduate students will defend their thesis/dissertation before a panel of examiners which includes an external examiner, an internal examiner, the COPOS Representative (An academic staff of the rank of a Senior Lecturer) the Head of Department, the Supervisor and any other academic of high standing status deemed fit to be present at the defence by the College of Postgraduate Studies

### **16.2. Eligibility for Course Examinations**

A student shall attend all lectures, tutorials, seminars and practical, and undertake all other activities and assignments as approved by the University for his/her programme.

Each Department shall, with the approval of the Academic Board, determine the requirements for the courses they offer. A student who does not fulfil the requirements for any course shall not be allowed to take the examination for that course.

Any student who is absent for a cumulative period of 25% from lectures, tutorials, practical, and other assignments prescribed for any course in any semester shall be deemed to have withdrawn from the course. Such a student shall not be permitted to write the semester examination.

### **16.3 Registration for Examinations**

Registration for a University Examination shall require the endorsement of the Registration List by the Head of Department to the effect that the candidate has pursued satisfactorily the approved course(s) of study in each subject being offered over the prescribed period. A candidate's registration shall not be valid unless it is so endorsed.

Endorsement shall be withheld if a candidate is not deemed to have followed satisfactorily the approved course of study. In the event of the withholding of an endorsement, the Head of Department shall request the appropriate College Committee to confirm the action taken, and subsequently communicate same to the Board of the College of Postgraduate Studies for a final decision.

Where applicable, candidates shall have up to 3 weeks (21 days) from the commencement of the semester within which to ADD or DROP courses. After 21 days of the semester, departments shall publish for verification by students, lists of registered candidates for the courses offered by the department. The lists of registered candidates shall be forwarded to the College of Postgraduate Studies before the end of the sixth week of the semester. The lists shall be deemed as constituting final registration for end-of-semester examination. This means that by the end of the sixth week, students whose names do not appear in any course list shall not be allowed into the end-of- semester examination for that particular course.

Similarly, students who are duly registered for a course but fail to take the end-of-semester examination for that course shall be deemed to have absented themselves from the examination of that particular course, for which grade "X" shall be awarded.

### **16.4. Student in Good Standing**

A student in good standing shall be one who would have passed a minimum of 24 Postgraduate level credits at the end of the second semester or Part I examinations and has obtained a Final GPA of 3.00 (except otherwise stated in the BMAS) or better. Where a student does not pass the required minimum of 24 Postgraduate level credits as stated above, he/she shall be deemed not to be in good standing and shall be asked to withdraw. Notwithstanding the provision above, candidates who fail to make the Final Grade Point Average of 3.00 or better at the end of their Postgraduate course work would be deemed to have failed even if they have passed the

required minimum of 24 Postgraduate level credits. Such candidate(s) shall be asked to withdraw.

If a candidate obtains the minimum number of 24 credits required at the end of the Year 1 Examinations, but fails in more than two core courses, the candidate shall be withdrawn from the programmes and may be advised to change to another course of study.

#### **16.5. Grading System for Course Work**

A student's performance in a course shall be graded as follows:

<b>Grade</b>	<b>Numerical Marks (%)</b>	<b>Interpretation</b>	<b>Grade Point</b>
<b>A</b>	<b>70-100</b>	<b>Excellent</b>	<b>4.00</b>
<b>B</b>	<b>60-69</b>	<b>Good</b>	<b>3.50</b>
<b>C</b>	<b>50-59</b>	<b>Credit</b>	<b>3.00</b>
<b>F.</b>	<b>0 - 49</b>	<b>Fail</b>	<b>0.00</b>

#### **16.6. Grade Point (GP):**

Each Grade shall be assigned equivalent grade point as indicated above. The number of (grade) points earned by a student for each course completed is computed as the product of the number of credits for the course and the grade point equivalent of the grade obtained in that course.

#### **16.7. Cumulative Grade Point Average (CGPA):**

The student's cumulative grade point average shall be calculated by dividing the total number of grade points obtained, up to any specified time by the total number of credits for all courses for which the student has registered up to that time.

#### **16.8. Final Grade Point Average (FGPA):**

The FGPA shall be the CGPA for all courses under consideration calculated up to the end of a student's academic programme.

## **17.0. DEFINITION of GRADES**

**Pass Grade:** A, B or C

**Failure Grade:** F

## **18.0 RE-TAKING COURSE WORK**

### **18.1 Masters and Equivalent Programmes**

For all 18–24 months Postgraduate programmes, a candidate may be permitted to re-take failed courses at the next regular opportunity. A candidate who fails a course but is in the 3.00 bracket may be eligible to submit his/her dissertation and apply to re-take the failed course during the second semester of the next academic year.

### **18.2 MBA and Equivalent Programmes**

If a candidate obtains the minimum number of 24 credits and a Final CGPA of 3.00 required at the end of the Part I examinations, but fails in up to two core courses, he/she can proceed to the second year, but must pass all such core course(s) before obtaining the degree.

Candidates re-taking failed papers must do so within the maximum time permitted for the completion of their programmes as prescribed.

## **19.0. DEFERMENT OF EXAMINATION**

### **19.1. On grounds of ill-health:**

A student, who has satisfied all the requirements for taking examination, but is unable to take the end of semester examinations on grounds of ill health, shall, on application to the Dean of the College of Postgraduate Studies, and on provision of a Medical Certificate issued or endorsed by a qualified Medical Personnel/Institution/Facility may be permitted to defer the examinations, and be allowed to take them at the next offering.

### **19.2. On grounds other than ill-health:**

In the case of deferment on grounds other than ill-health, the student shall apply to the Dean of College of Postgraduate Studies through the Head of Department stating reasons why he or she wishes to defer the examination. Upon approval, the student must take the examination at the

next offering. In all cases of deferment of examinations, the applicant(s) must obtain written responses from the Dean of the College of Postgraduate Studies before leaving the University.

## **20.0 SCHEME OF EXAMINATIONS**

### **20.1 PGD/MASTERS DEGREE/PhD and Equivalent Programmes**

The examination shall consist of written papers and such practical/project work/dissertation/long essay as may be prescribed, and where applicable.

Candidates will be examined orally on the substance of their thesis/dissertation/long essay.

### **20.2 MBA**

The examination shall consist of written papers and such practical work/long essay/term paper as maybe prescribed.

A candidate may also be examined orally on the substance of his/her dissertation.

### **20.3 Fees and Admission into Examination Hall**

Fees for tuition, research, residence and examination shall be paid at rates prescribed by the University and are subject to review. No candidate shall be admitted to an examination unless he or she has discharged all obligations owed to the University, including payment of appropriate tuition, research, residence and examination fees.

### **20.4 Examiners and Determination of Results**

### **20.5 Moderation of Written Papers**

All written examinations shall be moderated by faculty members within the department and college.

### **20.6 Examination of Thesis/Dissertations/Project Works/Long Essays**

Examiners shall be appointed by the Academic Board on the recommendation of the College Board and the Board of Postgraduate Studies to examine a Thesis/Dissertation/Long Essay/Project Work submitted for the Masters degree.

## **20.7 Internal Examiners for Thesis/Dissertations/Project Works/Long Essays**

Internal examiners shall be assigned for thesis, dissertations, project works and long essays from within the academic unit or from outside the academic unit provided the examiner is not from an institution other than Caleb University. The internal examiner must be the holder of a degree that is at least equivalent to the degree for which candidate has enrolled.

The Head of Department shall complete and submit appropriate forms to the College of Postgraduate Studies for approval in the case of new internal examiners.

Faculty members pursuing Postgraduate degrees at Caleb University or other institutions cannot examine other Postgraduate students. The Lead Supervisor of a student shall NOT normally examine the student's thesis/dissertation. However, only one of the supervisors of a Masters student may be appointed as an Internal Examiner.

## **20.8 Appointment of External Examiners**

All external examiners shall be appointed by the College of Postgraduate Studies Board on the recommendation of departments, and confirmation by Senate. Departments may request for appointment of external examiners for Postgraduate thesis or dissertation through the Department/College PG Committee. In the case of new external examiners, full Curriculum Vitae shall be submitted through the College PG Committee to the Board of Postgraduate Studies for approval. The abridged Curriculum Vitae may also be submitted together with thesis/dissertation examination particulars for approval.

## **20.9 Grading System for Dissertation/Thesis/Long Essay/Project Work**

A student's performance in a dissertation/thesis/long essay/project work shall be graded as follows:

Grade	Numerical Mark (%)	Interpretation
<b>A</b>	<b>70–79</b>	<b>Excellent</b>
<b>B</b>	<b>60–69</b>	<b>Very Good</b>
<b>C</b>	<b>50–59</b>	<b>Credit</b>
<b>F</b>	<b>0 –49</b>	<b>Fail</b>

### **Examiners Report**

A candidate who is scored grade “A” by all examiners including the oral examination shall be awarded Distinction in the thesis or dissertation.

A separate report, duly signed, shall be submitted by each Examiner to the Board of the College of Postgraduate Studies in respect of a dissertation or thesis submitted.

The Examiners’ reports on a dissertation or thesis shall indicate as comprehensively as possible whether or not the candidate demonstrates a good general knowledge of a particular field of learning within which the subject of his/her dissertation or thesis falls; whether or not the presentation of the candidate’s material is satisfactory; and whether or not the dissertation or thesis meets the requirements of the degree for which it is submitted.

## **20.10 Oral Examination for Postgraduate Candidates**

### **Approval of Title**

The Head of academic unit shall submit the dissertation/thesis/long essay titles of all Postgraduate candidates to the appropriate College Committee and the Board of the College of Postgraduate Studies for approval. After the title of the dissertation or thesis has been approved, it may not be changed except with the written permission of the Board of Postgraduate Studies on the recommendation of the Department and the appropriate College Management Committee.

### **Submission Requirements**

After completing his/her course of study, the candidate shall submit to the Board of College of Postgraduate Studies through the Head of Department along essay/project work/dissertation/thesis which shall comply with the following conditions. Each copy of the thesis/dissertation/long essay/project work shall be signed by the candidate and the supervisor(s). A thesis or dissertation not signed as such must be accompanied by a letter from the supervisor(s) explaining the reason for the thesis not being signed. The greater portion of the work submitted must have been done subsequent to the registration of the student as a candidate for a Masters/Ph.D. degree.

Unless otherwise specified, the dissertation or thesis shall normally be written in English and the presentation of the dissertation or thesis must conform to the prescribed format. A dissertation/thesis submitted shall consist of the candidate's own account of his/her research.

### **Declaration**

There shall be a Declaration to the effect that the thesis/dissertation/long essay is the candidate's own work produced from research undertaken under supervision. It may describe work done in conjunction with the candidate's Supervisor provided that the candidate states clearly his/her share in the investigation and that his/her statement is certified by the Supervisor. Work done jointly with persons other than the candidate's Supervisor shall be accepted as a thesis in special cases only; in such cases, the approval of the College Management Committee and of the Board of Postgraduate Studies shall be required. A candidate shall not be permitted to submit a dissertation or thesis for which a degree has been conferred in this or any other university. However, a candidate shall not be precluded from incorporating his/her published work based on the thesis research. A paper written or published in the joint names of two or more persons shall not, normally, be accepted as a thesis.

### **Departmental Oral Defense**

A candidate who submits a thesis/dissertation/long essay for Ph.D./Masters/PGD and equivalent degrees, shall undertake a departmental oral defense of his/her thesis before the thesis is submitted to the College of Postgraduate Studies for examination. Thesis must have been submitted to the College of Postgraduate Studies at least 8 Weeks before the scheduled date for the Thesis/Dissertation Defence/Viva to enable onward communication of same to all parties involved within and outside the University. Six copies of soft-bound thesis/dissertation must be submitted for this purpose.

For this examination, a panel including a Chairman, who shall normally be the External Examiner, the Head of Department and the internal examiner of the candidate, shall be constituted. Where the Head of Department is the candidate's internal examiner or the supervisor, another faculty member shall be nominated by the Head of Department to serve on the panel in addition to the external and internal examiners.

## **20.11 Determination of Dissertation/Thesis Results**

### **Submission for further Oral Exam.**

If a candidate fails to satisfy the examiners at the oral examination, the panel may recommend to the Board of the College of Postgraduate Studies that the candidate be permitted to submit to a further oral examination within a period not exceeding two (2) months.

If the candidate fails to satisfy the Examiners at the second oral examination, the thesis/dissertation/long essay shall fail.

The Board of Postgraduate Studies shall review the recommendations of the examiners of a Thesis/Dissertation/Long Essay as follows:

- Where all examiners pass the thesis/dissertation/long essay the Board shall pass it.
- Where one examiner fails or refers a thesis/dissertation/long essay, the Board shall review the nature of the fail or referral grade and decide whether to pass, refer or fail it.
- A thesis/dissertation/long essay or thesis referred by more than one examiner shall be referred.
- A thesis/dissertation/long essay failed by more than one examiner shall fail.
- A candidate who fails the oral examination shall be referred and given another opportunity to undertake the oral examination.
- A thesis/dissertation/long essay referred for a second time shall fail.
- A plagiarized thesis/dissertation/long essay shall be rejected and the candidate shall be deemed to have failed.

## **20.12 Review of Results of Previously Released Written Examination**

The general rules guiding all examinations in the University should be referred to concerning examination conducts and penalties for examination malpractices. A candidate who is not satisfied with the results of a University Examination affecting him/her may request a review by the submission of an application to the Dean of the College of Postgraduate Studies through the Head of Department and pay a review fee which shall be three times the normal Examination Fee. An application for a review shall be submitted to the Dean of the College of Postgraduate Studies through the Head of Department not later than 21 days after the release of the said results and shall state the grounds for review.

No action shall be taken on an application, which is submitted outside the time stipulated above. Review shall not proceed unless the Review Fee has been fully paid. An application entered on a candidate's behalf by a person other than the aggrieved candidate himself/herself shall not be entertained. In the light of the review, the Board of the College of Postgraduate Studies may authorize the Registrar to amend the results previously released as appropriate. If it emerges that a complaint for review is frivolous or ill-motivated, the Board of the College of Postgraduate Studies may prescribe further sanctions which may include barring the complainant from University examinations for a stated period or an indefinite period.

### **20.13 Lapsed Thesis/Dissertation**

Where a candidate fails to complete a Ph.D/Masters thesis/dissertation within the required period including extension, the thesis/dissertation shall be deemed to have lapsed and cannot be submitted. Such a candidate may, however apply for re-admission to his/her programme. If recommended by the Department for re-admission, the candidate shall be admitted for one semester in the case of a Masters degree and two semesters in the case of a Ph.D. The above shall apply only on condition that the candidate has satisfied all coursework requirements of the programme and passed his/her coursework not later than two(2) semesters by the time of application for re-admission with respect to Master's Degree candidates and four (4) semesters in respect of Ph.D. candidates.

### **20.14 Deadlines for Submission of Revised Theses/Dissertations**

### **20.15 Submission of Revised Thesis/Dissertation Passed subject to Correction**

A Ph.D. thesis passed subject to correction shall be submitted to the College of Postgraduate Studies through the Head of Department within Two (2) Months from the date of notification.

A M.Sc. dissertation passed subject to correction shall be submitted to the College of Postgraduate Studies through the Head of Department within One (1) Month from the date of notification.

In all cases, a candidate who fails to submit the revised dissertation/thesis within the deadlines stated above may be granted **one semester of extension only** and shall be charged the appropriate extension fees for the semester.

Beyond the one semester grace period after the stipulated deadlines, the student shall lose his/her candidature.

#### **20.16 Re-submission of Referred Thesis/Dissertation for Re-examination**

If a dissertation or thesis submitted for a Ph.D./Masters degree is **Referred**, the candidate may be permitted to re-submit it in a revised form within three (3) months in the case of the Masters and (6)months in the case of Ph.D. theses.

Where a thesis/dissertation submitted for a Ph.D./Masters degree is **referred** and is being resubmitted, the candidate shall be required to **re-register** and pay the appropriate fee(s). The re-submitted thesis shall reflect the new date of submission.

#### **20.17 Failed Thesis/Dissertation**

Where a candidate's thesis/dissertation is declared a failure, the candidate may apply for re-admission to his/her programme. Such re-application shall be processed in accordance with the provisions stipulated for re-admission

A student shall not be allowed to renew his/her candidature one (1) year after determination of thesis/dissertation as failed.

### **21.0 PUBLICATION of RESULTS**

Results of Semester examinations taken at the end of each semester shall normally be published by the College of Postgraduate Studies before the commencement of the next semester.

The results of thesis/dissertation/long essays shall normally be declared when all the examination processes are completed.

Results of Postgraduate degree programmes shall normally be published as follows:

The Date of Award for Thesis/Dissertations submitted by 31<sup>st</sup> September shall be September of the year of submission.

Where a candidate re-sits a failed course and passes it after submission of his/her thesis/dissertation, the date of award shall not precede the date of passing written examination.

## **22.0 FORMAT of DISSERTATION or THESIS**

All thesis must be prepared according to both the Caleb University College of Postgraduate format requirements and college/departmental documentation or reference formats. Which is as stated below;

*NB: When adopting this format, HOD'S should be mindful of the peculiarities that are suitable to their departments and colleges.*

## **22.1 PROCESS TO CHOICE OF RESEARCH TOPIC**

### **CHOICE OF RESEARCH TOPIC**

Two major things must be noted:

- I. Every research topic must be borne out of a gap in the literature.
- II. And the Gap must be contextualised to a Problem.

Or Vice-versa.

### **Identifying gaps in the Literature**

- Download articles in your area of interest
- Study them to detect gaps through as ESTOL- Electronic Summary Table Of Literature comprising- Title, Author and Year, Journal Name, Statement of Problem, Methodology,

### **Findings, Gaps, Contribution to Knowledge.**

- Do a Gap Analysis
- Contextualize the gap to a Problem- First Pilot Study

### **Idea Generation**

- Having identified the gaps and contextualized such gaps into Problems.
- There is need to write the idea generation comprising:
- Gap 1-----n
- Statement of Problem 1-----n

- Objective 1-----n
- Research question 1-----n
- Research Hypothesis 1----n
- Operationalization of the variables 1----n
- Intended contribution to knowledge.
- Overall conceptual Model
- Choice of Research Topic

## **22.2 General Writing Style**

### **CHAPTER ONE: INTRODUCTION**

- 1.0 Introduction
- 1.1 Background to the study
- 1.2 Statement of the problem
- 1.3 Objectives of the study
- 1.4 Research questions
- 1.5 Research hypotheses
- 1.6 Rationale of Hypotheses
- 1.7 Operationalization of the variables.
- 1.8 Scope of the study
- 1.9 Significance of the study
- 1.10 Operational definition of terms.
- 1.11 Historical background of the research context

### **CHAPTER TWO: REVIEW OF LITERATURE**

Brief introduction of the chapter should be done

## 2.1 Conceptual Review

## 2.2 Empirical Review

### 2.2.1 Methodological Review

### 2.2.2 Findings Review

## 2.3 Theoretical Review

### 2.3.1 Theoretical Framework

### 2.3.2 Identification of variables.

### 2.3.3 Theoretical Model

## 2.4 Summary and gaps in the literature.

## 2.5 Conceptual Model

# **CHAPTER THREE: METHODOLOGY**

Brief introduction of the chapter.

## 3.1 Research Design

## 3.2 Population of the study

## 3.3 Sampling unit

## 3.4 Sampling Frame

## 3.5 Sampling Technique

## 3.6 Sample size determination

## 3.7 Method of Data collection

## 3.8 Research Instrument

### 3.8.1 Pilot study

### 3.8.2 Validity of the research instrument

### 3.8.3 Reliability of the research instrument

### 3.9 Data Treatment

### 3.10 Method of Data Analysis.

#### 3.10.1 Measurement of Variables

#### 3.10.2 Conceptual model

#### 3.10.3 Model specification

#### 3.10.4 Apriori Expectation

### 3.11 Limitation of the Methodology

### 3.12 Ethical Consideration

## **CHAPTER FOUR: DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION**

Brief introduction of the chapter.

### 4.1 Data presentation

#### 4.1.1 Demographic data of respondents

### 4.2 Data treatment

### 4.3 Data analysis, interpretation and discussion

#### 4.3.1 Re-statement of objectives, research question and hypotheses.

#### 4.3.2 Relevant tables of findings for each objectives, research question and hypothesis, Interpretation and discussion.

#### 4.3 Summary table of findings.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

Brief introduction of the chapter

### 5.1 Summary of the study

### 5.2 Conclusion

5.3 Contributions to knowledge

5.4 Recommendations

5.5 Implications of findings

5.5.1 Management Practice

5.5.2 Industry

5.5.3 Society.

5.6 Limitation of the study

5.7 Suggestion for further studies.

## **22.2 RESEARCH REPORT WRITING**

### **CHAPTER ONE**

#### **INTRODUCTION**

##### **1.1 Background to the Study**

- Identify the variables both dependent and independent, then write the underlying issues concerning the dependent variable- Global and national.
- Link these variables together and justify their logical linkage.
- Present prevailing issues in the industry that are necessitating the study and ensure you give credibility and sources for all assertive, insistent and emphatic statements or facts.
- Then give an opening to the problem.

##### **1.2 Statement of the Problem**

- A statement of the problem is divided into two: First, as gap, while gap in knowledge is a vacuum that is yet to be filled in literature, second, as contextual issues which are the delinquencies that these gaps are already causing.
- You should have a general problem discussed after which you discuss your sub or specific problems which must tally with, link to or be in tandem with the number of specific objectives and research questions that you will have in your study.

- Note that the general problem must tally with the general objective, while the specific or sub-problems must tally with specific objectives.
- Writing a good problem is based on a concrete knowledge of the prevailing problems or issue in the industry where you want to carry out your research.
- Therefore there is a need for a pilot study in order to establish a problem. It does not mean that you have to be distributing questionnaires to establish your problem, it means that you need to dig into archives of industry to bring out specific problems. This helps to give sources to the problems identified.
- You can't have a good problem without a veritable source, you may have the problem in your head, but you need credible sources to back your claims.
- When writing a review, it must be in present continuous tense, not in past tense. Every assertive sentence must be sourced and there is need to avoid short paragraphs, e.g. four lines.
- Make your points and elaborate well.
- When writing, write in full and not in acronyms.

### **1.3 Objectives of the Study**

- You must have a general objective that will tally with the general problem then followed by the specific objectives that must tally with the specific problems and relate to the specific research questions and hypotheses. Avoid repetition of the term; to evaluate, to ascertain, to examine, rather have the to: and then follow with evaluate, examine, ascertain.

### **1.4 Research Question**

- Just go ahead and state the specific research questions. Your research questions should not be such that can be answered with a yes or no, else there is no need for research.
- Avoid questions that start with.... "to what extent", rather focus on .."what is," "how does" etc.

### **1.5 Research Hypothesis**

- You should state your hypothesis in the null form, and they must tally much with the specific objectives and research questions.

## 1.7 Operationalization of the Variables

- Your study has variables and these variables need to be operationalized in order to show the functional relationships between them.

X = Independent variable

Y = Dependent Variable

Where

$$X = f(x_1, x_2, x_3, \dots, x_n)$$

$$Y = f(y_1, y_2, y_3, \dots, y_n)$$

Therefore:  $y_1 = f(x_1) \dots (1)$

Relationally: Correlation Coefficient:

$$y_2 = f(x_2) \dots (2)$$

$$y_n = f(x_n) \dots (n)$$

Regressionally, we have

$$y_1 = a_0 + \beta_1 x_1 + \mu \dots (1)$$

$$y_2 = a_0 + \beta_2 x_2 + \mu \dots (2)$$

$$y_n = a_0 + \beta_n x_n + \mu \dots (n)$$

The number of your hypothesis will determine the number of equations you should have.

### Scope of the study

The scope comprise:

- Geographical scope
- Construct scope
- Unit of Analysis
- Time Horizon

## **Historical Background**

- Write the background of companies selected.

## **Definition of terms**

- Define the uncommon terms as stated in the Literature.
- All technical terms are defined as seen in the literature.

## **Operational Definition of Terms.**

This is used when the terms are defined differently from what is obtained in the literature but as suitable for the study.

# **CHAPTER TWO**

## **LITERATURE REVIEW**

### **Introduction**

Give a short introduction to the review to be done based on conceptual review, theoretical review and empirical review.

### **What is review?**

- Review is different from summary. While summary is a compressed form of ideas, a review is a synthesis of ideas.
- How do you synthesize? You synthesize by:
  - Step 1:** Gather all ideas on a subject matter,
  - Step 2:** Outline different views on a particular section of the subject matter,
  - Step 3:** Distill the views by bringing together similar views and identifying the reasons for similarity
  - Step 4:** Bring together the other views and the reasons for their differences.
  - Step 5:** Weigh the reasons from these two sides and advance your position which will become a contribution to knowledge

### **2.1 Conceptual Review**

- Give small introduction to the conceptual review.

- Each of the variables in your study are your concepts.
- Textbooks are often used for conceptual review because it involves reviewing the definitions, attributes, characteristics, features, advantages and disadvantages of the various concepts.
- Then discuss your concepts by defining them based on different authors and juxtaposing, comparing and contrasting these ideas in order to come up with your own position on all the items under concepts which are definitions, attributes, characteristics, features, advantages and disadvantages.
- All concepts must be discussed in this manner and it must be in a present continuous tense.

## 2.2 Theoretical Review

- State all the theories that you want to examine, review and explain them.
- Apply these theories to your variables or better still situate your variables in these theories.
- These theories should be based on the interaction that exist between your dependent and independent variables.

The review is done in this order:

- Who propounded the theory, what it states and the assumption.
- The critics of the theory and the findings of their researches
- The supporters of the theory and the findings of their researches
- How the theory explains your variables and their relationships or effects.
- Choose a particular or set of theories that best explain/s both your dependent and independent variables as the theoretical basis of your study which is your **Theoretical Framework**.
- The theoretical framework explains the theory on which the study is based and why.
- Avoid bullets and numberings in your review

## 2.3 Empirical Review

This is done in two ways:

1. Where independent variables are broken into sub-variables and all will be used against the dependent variable, then a methodological review will be done where all methods used in the articles reviewed will be reviewed to establish the best method for the study. Before an objective by objective review of the variables are done.
  2. Where each independent variable is pitched against a dependent variable, then only objective by objective review will be done and the methods used by each author is reviewed alongside each of the objective review.
- In doing the review, past works of other researchers around each of the study will be reviewed. **Identifying Gaps in the Literature**

Gaps in the literature are best identified by reading extensively on the subject matter. Follow the following steps to identify gaps in the literature:

**Step 1:** Download current relevant articles of not more than five years from the present date on the subject matter.

**Step 2:** Read the articles with particular attention to the introduction, literature review, conclusion and suggestions for further studies.

**Step 3:** Try to identify studies that are yet to be done as suggested by the authors in the articles. These are gaps.

**Step 4:** Look through the references of the articles on this subject matter to see whether these gaps had already been filled.

**Step 5:** Delete all already filled gaps as observed from the exercise.

**Step 6:** Your list will now consist of an existing gap.

**Step 7:** Put all gaps with similar variables together under one theme and give a name to that theme. These will give birth to an OBJECTIVE.

## **2.4 Summary and Gaps in the Literature**

Summarize all your work in that chapter on four or more paragraphs which are based on concepts

- Concepts
- Theories
- Empirics
- Gaps noted

## **2.5 Conceptual Model**

A conceptual model is a diagrammatic representation of the various positions of your gaps and their interrelatedness. The conceptual model at this point should show the Gap as identified.

## **CHAPTER 3**

### **METHODOLOGY**

As usual give a brief introduction. Then give the methodologies that have been used by other researchers and tell us the methodology that you want to adopt and justify your position.

#### **3.1 Research Design**

Tell us your design and justify the use of such design based on other authors.

#### **3.2 Population of the Study**

The target population has to be described and the estimated figure should be given based on a credible and veritable source.

#### **3.3 Sample Size Determination**

The formula should be stated, with its assumptions, then do the calculation and according to Israel (2013) there should be an inclusion of 30% of the sample to take care of the non-response rate occurrence. (Recommended Sample size for PhD is 1000 and above, Mphil = 800-1000, Msc, Mba = 600-800).

#### **3.4 Sampling Technique**

The technique to be adopted must be stated and why.

#### **3.5 Method of Data Collection**

Types of data needed and sources of such data should be given.

Then describe how you want to collect your data: direct or through the use of research assistants and explain the kind of trainings given to them based on the demands of your research.

### **3.6 Research Instrument**

Describe the questionnaire, scales (5-point or 6-point Likert type scales), state their denotations and sources of the items used in the instrument.

### **3.7 Pilot Study**

For the pilot study, at least 10% of your sample size should be used as size for the pilot and it must be a sample that is different from the intended sample for your study.

You should also explain how you administered the pilot questionnaires to them, state the particular method used and the advantages.

#### **3.7.1 Validity of the Research Instrument**

The validity will always be ascertained by the supervisor and other experts in the area where you are studying.

#### **3.7.2 Reliability of the Research Instrument**

You can do this through split half or test-re-test method.

This will help to ascertain the Cronbach Alpha coefficient based on item-to-item correlation as well Average Variance Extracted (AVE)

### **3.8 Method of Data Analysis**

State the method that you want to use for the analysis of your data and justify this based on the assumptions of such method.

#### **3.8.1 Research Model**

Here you need to state both your conceptual and regression models.

The conceptual model should show the Hypothesis.

#### **3.8.2 Apriori Expectation**

You need to let us know the relationship or result that you are expecting from the analysis based on Literature, between the variables based on all the hypothesis that you have formulated.

### **3.9 Ethical Consideration**

You should explain how you are going to take care of ethical issues in the research based on

- Anonymity
- Confidentiality
- Conflict of interest (if any)
- Benefits to the respondents.
- Data storage

### **Questionnaire**

- Each section of the questionnaire must carry a variable.
- A question or item must be directly related to the indicator of variable it is expected to measure.
- A variable must be measured independently of all other variables.
- The option “Undecided” should not appear on your questionnaire because it has no statistical value.
- If the demographic items are not part of your hypothetical assumptions, then you can move them to the back or end of the questionnaire.

## **CHAPTER FOUR: DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION**

**Brief introduction of the chapter:** To summarize the content of the chapter.

### **4.1 Data presentation**

The response rate and its interpretation should be presented here.

#### **4.1.1 Demographic data of respondents**

Demographic data and its interpretation should be presented here.

### **4.2 Data treatment**

Different treatments to which the data are subjected should be written here with interpretations.

### **4.3 Data analysis, interpretation and discussion**

The objectives, research questions and hypotheses are re-stated with relevant data analytical results, interpretations and discussions.

#### **4.3.1 Re-statement of objectives, research question and hypotheses.**

#### **4.3.2 Relevant tables of findings for each objectives, research question and hypothesis, Interpretation and discussion.**

#### **4.3 Summary table of findings.**

A table of findings is drawn to show hypotheses that were rejected and those not rejected and the concomitant results.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

Brief introduction of the chapter: Summarized content of the chapter is written here.

### **5.1 Summary of the study**

The summary of the study is a summarized position of chapters 1-4.

### **5. 2 Conclusion**

This section states the final results positions of the study and relevance.

### **5.3 Contributions to knowledge**

Contribution must be written in terms of conceptual, theoretical and empirical contributions

### **5.4 Recommendations**

Recommendations must stream from each of the findings of the study. No recommendation must be made on what has not been found.

### **5.5 Implications of findings**

Implication of the findings should align with stakeholders mentioned in the significance of the study e.g. Management Practice, Industry, Society, Academic/Researchers and so on.

#### **5.5.1 Management Practice**

#### **5.5.2 Industry**

### **5.5.3 Society.**

### **5.6 Limitation of the study**

The Limitation of the study are issues with the research methods used that could limit the generalization of the findings of the research and how the research ameliorate such effects.

### **5.7 Suggestion for further studies.**

Areas of the study not covered by the research but that are critical for knowledge expansion in the study area.

## **References**

- All sources cited in-text must be taken care of at the list of references.
- All references must follow the 7<sup>th</sup> APA Format follow this link to get one [http://www.muhlenberg.edu/library/reshelp/apa\\_example.pdf](http://www.muhlenberg.edu/library/reshelp/apa_example.pdf)
- All sources/ references must not be old but current depending on the year the study was conducted.

## **23.0 BINDING INSTRUCTIONS**

### **23.1 LIBRARY BINDING SERVICES**

Students are to use the binding services provided by the University Library.

### **23.2 Preliminary Information**

### **23.3 Title Page**

The title page shall consist of the following which should be centred on following the sample and wording in the Postgraduate College Manual:

- Title of the Thesis
- Statement of Submission
- Name of Candidate (No Titles)
- Student Matriculation Number (In brackets below the name)

- In partial fulfilment of the Requirement for the Award of (Relevant Degree e.g. Doctor of Philosophy or Master of Science in (Subject written out fully)
- The date of submission (Month and Year)

#### **23.4 Declaration/Signature Page**

A candidate submitting a thesis/dissertation for a Ph.D./Masters degrees shall make a declaration to the effect that the thesis/dissertation is his/her own work produced from research under supervision.

- Signatures: The declaration page shall be signed by the following:
- The Candidate
- Supervisors
- Head of Department
- Dean

#### **23.5 Abstract**

Every candidate shall present a short abstract of his/her dissertation or thesis of between 250 to 300 words. (single spaced) and it should be in this order: General background to the study, statement of the problem, general objective, method adopted, research design, population, sample size, sampling method, research instrument description, validity, reliability, response rate, method of data analysis, findings, conclusion and recommendations. (It should be block pattern)

#### **23.6 Dedication** (It should be dedicated to God first, then any other human being)

#### **23.7 Acknowledgement:** (1 page maximum)

The candidate may briefly acknowledge those who made important contributions to the success of his/her research and presentation of thesis. Where the thesis has benefited from a collaborative project done in conjunction with the candidate's Supervisor(s), this should be duly acknowledged. The candidate must endeavor to follow same pattern in writing of names .e.g. First Name, then Second Name. The candidate should avoid the use of initials.

### **23.8 Table of Contents**

A well-aligned presentation of preliminary information, chapters with subsections, bibliography and appendices of the thesis with relevant page numbers indicated.

### **23.9 List of Figures/Maps**

A list of figures and maps with the irrelevant designated numbering and relevant pages at which they are located. **The title of the figures should be at the bottom.**

### **23.10 List of Tables**

A list of tables with the irrelevant designated numbering and relevant pages at which they are located. **The title of the tables should be at the top.**

### **23.11 List of Abbreviations**

A list of relevant abbreviations and their full rendering occurring in the thesis

### **23.12 Substantive Sections**

### **23.13 Chapter Structure**

The chapter structure is as denoted in section 22 above. Except for discipline peculiarity, it is expected that departments should follow this pattern.

### **23.14 Reference Style**

- **All sources cited in-text must be taken care of at the list of references.**
- **All references must follow the 7<sup>th</sup> APA Format follow this link to get one [http://www.muhlenberg.edu/library/reshelp/apa\\_example.pdf](http://www.muhlenberg.edu/library/reshelp/apa_example.pdf)**

All sources/ references must not be old but current depending on the year the study was conducted

The board should decide, the number of years that we regard as old and the number of years we regard as current

### **23.15 Thesis Size**

A thesis/dissertation shall normally be a minimum of the following pages including bibliography, figures, tables, photographs, and appendices.

Degree	Research Designation	Number of Pages
PGD/MBA	Long Essay	60
MSc	Dissertation/Project	80
Ph.D.	Thesis	200

### **23.17 Appendices**

Appendices denoting documentary evidences in the thesis should be placed after references at the back of the thesis and properly numbered. All documents in the appendices must have been made reference to in the dissertation or thesis.

### **23.18 Presentation Format**

Four (4) typed or printed copies of the dissertation or thesis, using standard A4 paper, shall be submitted to the College of Postgraduate Studies through the Head of Department for examination.

- Typed thesis should be on only one side of the paper.
- Margins: When bound all margins of the thesis should be 1 inch
- Font Type & Size: Theses should be typed in New Times Roman Font Size 12.
- Chapter headings should be in New Times Roman Font Size 14 Bold.

- Font sizes for indented citations, graphs, figures and tables should not be lower
- New Times Roman fontsize10.
- Page Numbers: Page numbers should be centred at the bottom of page throughout the thesis.
- The preliminary pages should be numbered with Roman numerals.
- Page numbering in Arabic numerals should run through the entire thesis.
- Footnote numbering should run through a thesis.
- Footnotes NOT End notes should be used in all theses.

### **23.19 Examination Copy**

A thesis submitted for examination should be bound in soft manila card cover (green or light blue). The cover should bear the details of the Title Page of the thesis.

For the purpose of examination, a candidate shall be required to submit two (4) copies of his/her Ph.D. thesis/Master's degree dissertation and a soft version in PDF.

### **23.20 Final Copy**

After the dissertation or thesis has been approved, it must be bound in standard form and the SEAL of the COPOS-CUL placed on it. Six (6) final hard copies and the PDF soft version of the thesis/dissertation that have been accepted for the award of a Masters or a Doctoral degree shall be distributed as follows:

- i. One (1) hard copy and an electronic version in PDF version shall be sent to the College of Postgraduate Studies to be kept by the College;
- ii. One (1) hard copy and an electronic version in PDF version shall be sent to the College of the domiciled Department
- iii. One (1) hard copy and an electronic version in PDF version shall be sent to the Department
- iv. One (1) hard copy and an electronic version in PDF version shall be sent to the University Library
- v. One (1) hard copy to be retained by the Supervisor
- vi. One (1) hard copy to be retained by the Student

All copies are to be submitted through the department.

### **23.21 Labelling of Final Copy**

#### **23.21.1 Front Cover**

The front cover of the final copy should be lettered bold lying old (0.5.-1.25cm) with the details of the Title Page of the Thesis.

#### **23.21.2 Spine**

The spine of the thesis should be lettered boldly up back in gold (0.5to1.25cm) with the degree, date, name, before the award of the Degree is published by the Registrar.

### **23.22 BINDING COLOUR SCHEME**

The following are the approved colours for the final bounded thesis:

Programme	COPAS	COLENSMA	CASMAS	CEDUC
PGD	Deep Blue	Purple	Deep Green	Olive Green
MSc/MBA/MEd	Deep Brown	Purple	Deep Green	Olive Green
Ph.D.	Black	Black	Black	Black

## **24.0 AWARD of DEGREE**

### **24.1 ELIGIBILITY FOR THE POSTGRADUATE DEGREE**

A higher degree appropriately designated shall be awarded to a candidate who has been properly admitted to the University, has followed the approved course of study over the period, and who has fulfilled both the University and College/Departmental requirements. And the student must have published one (1) article from the thesis as master degree students and two (2) articles as PhD students along with their supervisors in an high impact Scopus indexed journal.

A Masters, an M.Phil. or Ph.D. degree shall not be conferred on a candidate unless the examiners are satisfied that the dissertation or thesis is worthy of endorsement as a dissertation or thesis approved for appropriate higher degree.

The result of examinations held in connection with the award of Ph.D/Masters shall be laid before the Academic Board and then Senate for approval. Thereafter, the degree shall be conferred under the seal of the University upon each successful candidate at Convocation of the University assembled for the purpose. Candidates shall qualify for graduation at Convocation if they have satisfied all the requirements for graduation by the end of the previous academic year. And do proper clearance at all designated University Units/Department/College with which they had interfaced in the course of their study. A candidate who could not fulfil all the requirements by the end of the previous academic year but does so in the first semester of the ensuing academic year shall be eligible for the next graduation. Candidates who intend to be presented at a Congregation must submit the corrected version of their theses for publication at least six weeks preceding the Congregation.

## **24.2 CANCELLATION of AWARD**

Notwithstanding the previous confirmation of an award of a degree, the Senate may at any time cancel an award, even with retrospective effect, if it becomes known that:

- i. a candidate had entered the University with false qualifications;
- ii. a candidate had impersonated someone else;
- iii. a candidate had been guilty of an examination malpractice for which a fail grade would have been awarded;
- iv. a candidate had plagiarized material in his/her thesis/dissertation. (All references to other people's work must be duly acknowledged in a student's dissertation or thesis. Failure to do so would be regarded as an act of plagiarism.)
- v. that there are other reasons that would have led to the withholding of confirmation of the award in the first place.

In any such event, the decision of the Academic Board and senate shall be published on the University Notice Board and the candidate notified. Such cancellation and the reasons for it shall be entered on the candidate's transcript.

## **25.0 TRANSCRIPT of ACADEMIC RECORD**

At the end of a student's programme, the University shall, on the payment of an appropriate fee, issue to the particular student a complete transcript of his/her academic record. This transcript shall be marked Student Copy and shall reflect all courses attempted and all results obtained.

## **26.1 ACADEMIC PROGRAMMES and DURATION**

The duration of a course of study is determined on departmental basis and by the NUC Minimum Benchmark for each course of study. A student who fails to complete his/her study within the stipulated period shall be allowed an additional two semesters within which he/ she must Postgraduate.

## **26.2 Types and Duration of Degrees to be Awarded**

### **26.3 College of Arts, Social and Management Sciences**

<b>Department</b>	<b>Degree</b>	<b>Min Duration</b>
Department of Economics	Postgraduate Diploma	<b>2 Semesters</b>
	Master of Science (Economics)	<b>4 Semesters</b>
	Master of Science Economics (Taxation) / ACTI(Economics)	<b>4 Semesters</b>
	M. Phil Economics	<b>6 Semesters</b>
	Ph.D. Economics	<b>8 semesters</b>
Department of Business Administration	Master of Business Administration	<b>4 Semesters</b>
	Master of Business Administration/ACIB	<b>4 Semesters</b>
	Master of Business Administration (Taxation) / ACTI	<b>4 Semesters</b>

Department of Accounting & Finance	Postgraduate Diploma (Accounting)	<b>2 Semesters</b>
	Master of Science (Accounting)	<b>4 Semesters</b>
	Master of Science Accounting (Taxation) / (ACTI	<b>4 Semesters</b>
	Master of Science (Finance)	<b>4 Semesters</b>
	Master of Science Finance / ACIB	<b>4 Semesters</b>
	Master of Science Finance (Taxation) / ACTI	<b>4 Semesters</b>
	M. Phil Accounting/Finance	
	Ph.D. Accounting/Finance	<b>8 semesters</b>
Department of Political Science and International Relations	Postgraduate Diploma (Political Science)	<b>2 Semesters</b>
	Master of Science (Political Science)	<b>4 Semesters</b>
	Postgraduate Diploma (International Relations)	
	Master of Science (International Relations)	<b>2 Semesters</b> <b>4 Semesters</b>
Department of Mass Communication	Postgraduate Diploma (Mass Communication)	<b>2 Semesters</b>
	Master of Science (Mass Communication)	<b>4 Semesters</b>

#### 26.4 College of Pure and Applied Sciences

<b>Department</b>	<b>Degree</b>	<b>Min Duration</b>
Department of Computer Science	Postgraduate Diploma (Computer Science)	2 Semesters
Department of Computer Science	Master of Science (Computer Science)	4 Semesters
Department of Computer Science	Ph.D. (Computer Science)	<b>8 semesters</b>

## **26.5 College of Environmental Sciences and Management**

<b>Department</b>	<b>Degree</b>	<b>Minimum Duration</b>
Department of Architecture	Master of Architecture	4 Semesters
Department of Architecture	Ph.D. Architecture	<b>8 Semesters</b>

## **26.6 Units Course System**

In line with the recommendation of the National Universities Commission, the University operates a course credit system. One credit unit is attached to one hour of lecture tutorial per week per semester. The equivalent of one hour of lecture per week is:

- Two hours of seminar
- Three hours of laboratory or field work
- Six hours of teaching practice. Two hours per week of industrial attachment

## **26.7 Student workload**

A student undertaking his/her course on a full time basis is normally required to register for a minimum of 12 and a maximum of 18 credit units per Semester.

## **26.8 Time Table and Contact Hour**

The University operates the semester system. Two semesters make one academic session with each semester making a period of seventeen weeks. Lectures will last for fifteen weeks in each semester.

## **26.9 Student Assessment**

The assessment of students is divided into two, continuous assessment and examination. Continuous assessment is cumulative of class tests, assignments, practicals, seminars/workshops, etc. and will constitute 30 percent of the total grade while the Semester.

Examination is 70 percent. All final year examinations must be moderated by an External Examiner whose rank must not be lower than that of a Senior Lecturer or its equivalent.

## **26.10 Examination Scoring and Grading System**

The examination scoring and grading system in Caleb University is as follows:

<b>Letter Grade</b>	<b>Letter Point</b>	<b>Mark</b>
A	5	70 and above
B	4	60 - 69
C	3	50 - 59
F	0	0 - 49

## **27.0 GRADUATION REQUIREMENTS and CLASSIFICATIONS**

For a Postgraduate student to qualify for an award of a degree, such candidate must have earned not less than **the minimum required** credit for a programme of study within the duration of the programme.

### **27.1 Postgraduate Diploma Classification**

The determination of the PGD class shall be based on the Cumulative Grade Point Average (CGPA) earned at the end of the programme.

Distinction.....	4.50- 5.00
Upper Credit.....	4.00 - 4.49
Lower Credit.....	3.50 - 3.99
Merit.....	3.00 - 3.49
Fail.....	0.00- 2.99

A student whose academic performance as measured by the Cumulative Grade Point Average (CGPA) falls below 3.00 at the end of the first semester is considered to be on probation. Such

student is allowed to register for the course unit failed as well as some course units from the next level provided his or her total credit load falls within the maximum allowed. A student whose (CGPA) falls below 3.00 at the end of the probation will be required to withdraw from the programme.

## **27.2 Masters' Degree classification:**

A student's class of degree is determined by the CGPA at the point of graduation as follows:

<b>Credit Units</b>	<b>% Scores</b>	<b>Letter Grades</b>	<b>Grade Points (GP)</b>
Vary according to contact hours assigned to each course per week per semester, and according to load carried by students.	70 – 100	A	5
	60 - 69	B	4
	50 - 59	C	3
	Below 50	F	0

## **27.3 Class of Degree for Masters**

Distinction..... 4.50- 5.00

Pass..... 3.00- 4.49

Fail..... 0.00- 2.99

## **27.4 Participation in Academic Conferences:**

Masters' Degree students are expected to participate and present paper in at least two seminars, one academic conference organised by Caleb University Lagos, or other universities and professional bodies, in addition to either a peer-reviewed journal article or a completed paper approved by the department as publishable. Seminars and CUL conferences are compulsory.

Ph.D. Degree students are expected to participate and present paper in at least three seminars, three academic conferences organised by Caleb University Lagos, or other universities and

professional bodies, in addition to two peer-reviewed journal articles. Seminars and CUL conferences are compulsory.

### **27.5 Resumption**

All students are expected to resume promptly. Anyone who does not resume within one week of the resumption date shall pay a fine of ten thousand naira (N10, 000.00)

### **27.6 Registration**

Registration for courses by students will take place within the first two weeks of any semester. Late resumption will attract a fine as specified by the University Authority. No registration will be allowed after the expiration of the fourth week of any semester. Registration guidelines shall be distributed to students at the beginning of registration exercise.

### **27.7 Guidelines for Regular Students' Registration**

- Registration for courses is online through Student Portal except as specifying otherwise.
- Fill in the courses you want to offer for the Semester.
- Carry-over courses must be offered first before any new course for the semester
- Submit all the copies of the registration form to your Course Adviser to ensure compliance with registration requirements (carry-over, total no of units permitted by the College), sign and submit to HOD for signature.
- Submit the four printed copies to the Dean's office for signature.
- Collect one copy of the registration forms to be kept in your personal file after the Dean must have signed.

Please note that the following will be strictly enforced:

- The registration process must be completed within the first two weeks of resumption.
- Late registration will attract a fine as specified by the University authority.
- Registration forms would not be signed after the expiration of the fourth week of the semester.
- Students not officially registered for a course shall not have result in that course even if they attended lectures in the course or somehow take the examination in that course.

- Students would not be allowed to register for more than the maximum credit load without the approval of the Head of Department/Dean/Senate.

## **28.0 ADMISSION REQUIREMENTS and REGULATIONS**

### **28.1 General Information**

- The academic calendar is organized in semesters. Programmes are made up of courses which are coded by levels of academic progression and are assigned credits. Each course is examined at the end of the semester.
- Each academic unit shall provide detailed information about the structure of programmes leading to the award of Postgraduate degrees in that unit and offer advice and counselling to students.
- It shall be the responsibility of each student of the University to know both the specific requirements of the Postgraduate degree for which he/she is registered as well as the rules, regulations and policies of the University and the relevant academic unit.
- It shall be the responsibility of each student to ensure that the courses selected satisfy the requirements for the award of the Postgraduate degree sought.
- Every student by the act of registering agrees to abide by all rules, regulations and policies of the University and of the relevant academic unit.
- Each student is required to acquaint himself/herself with the general information outlined in this handbook and any relevant information from the academic unit(s) in which he/she is enrolled. Students may consult their Head of Department or the Dean of Postgraduate Studies for additional information.
- Exemption from any of these General Regulations may be granted only by the express permission of the Academic Board on the recommendation of the Board of Postgraduate Studies and the appropriate College Management Committee.
- The University reserves the right to change rules, regulations and policies, as well as programme and course requirements outlined in this handbook without prior notice.

### **28.2 General Requirements**

To be admitted to a programme leading to the award of a higher degree, a candidate must have obtained a good first degree, at least a second class lower division, in an appropriate field of study at the Caleb University or any other recognized University. A PGD at credit/merit level pass is also acceptable. The Board of College of Postgraduate Studies shall consider all the recommendations made from academic departments for admission and decide which candidates may be admitted. A departmental admission committee is to be chaired by an academic staff of the Rank of Senior Lecturer and above. In a situation where these ranks are not available in a department, a Lecturer I may chair such committee.

### **28.3 Application**

Each candidate must complete the required application forms. Application for admission to programmes shall be submitted to the College of Postgraduate Studies. Forms for three referees' confidential reports, transcripts and certified copies of certificates shall be provided along with the main application forms. However, in exceptional cases, the completed application forms, referees' reports, transcripts and certified copies of certificates shall be sent directly to the Dean, College of Postgraduate Studies or submitted by the applicant in a sealed, signed and stamped envelope. Applications shall be considered in the first instance by the academic unit in which the applicant wishes to study.

The academic unit shall satisfy itself of the suitability of the candidate and the availability of resources, both material and human, for the successful completion of the candidate's work. An interview and/or a qualifying examination may be administered by the Department/Centre/Institute to determine the suitability of an applicant. The Head of the academic unit after due consultation with the Department Postgraduate Board of Studies shall submit in writing to the Board of Postgraduate Studies a statement on the suitability or otherwise of each applicant.

### **28.4 Course of Study**

A candidate who is admitted to a Postgraduate programme shall be required to follow the approved course of study over the prescribed period. Students must be regular and punctual for their academic work over the period of their candidature in the academic unit unless otherwise permitted by the Head of Department in writing.

## 28.5 Academic Session

The regular academic session shall comprise two semesters, as follows:

First Semester:      October – February

Second Semester:    April– July

Structure of Semester	
<b>1.</b>	<b>Regular Semester</b>
	A semester shall normally be of 17 weeks duration and shall be structured as follows:
	14weeks of teaching
	1 week of revision
	2 weeks of examinations

## APPENDIX

PROGRAMMES	DURATION	COURSE LOAD		TOTAL
		COURSE UNITS	PROJECT	
PGD Accounting	2 semesters	39	4	43
MSc Accounting	4 semesters	42	6	48
MSc Accounting (Taxation)/ACTI	4 semesters	54	6	60
MSc Finance	4 semesters	42	6	48
MSc Finance/ACIB	4 semesters	48	6	54
MSc Finance (Taxation)/ACTI	4 semesters	57	6	63
PGD Political Science	2 semesters	26	6	32

MSc Political Science	4 semesters	30	6	36
PGD International Relations	2 semesters	26	6	32
MSc International Relations	4 semesters	30	6	36
PGD Mass Communication	2 semesters	24	6	30
MSc Mass Communication	4 semesters	27	6	33
PGD Economics	2 semesters	24	6	30
MSc Economics	4 semesters	42	6	48
MSc Economics (Taxation)/ACTI	4 semesters	51	6	57
PGD Computer Science	2 semesters	35	4	39
MSc Computer Science	4 semesters	42	6	48
Master of Business Administration (MBA)	4 semesters	66	6	72
Master of Business Administration (MBA)/ACIB	4 semesters	81	6	87
Master of Business Administration (MBA) Taxation/ACTI	4 semesters	81	6	87
MSc Architecture	4 semesters	62	16	78
Ph.D. Architecture	8 semesters	60	12	72

## **29.0 COLLEGE OF ENVIRONMENTAL SCIENCES & MANAGEMENT**

### **DEPARTMENT of ARCHITECTURE**

#### **29.1 M.Sc. CURRICULUM**

##### **(A) FIRST YEAR MASTER OF SCIENCE DEGREE (FIRST SEMESTER)**

<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>UNIT</b>
Advanced Architecture Design Studio I	ARC 811	10
Advanced Working Drawings and Specifications I	ARC 841	2
Advanced Structures	ARC 857	2
Advanced Landscape Architecture	ARC 815	2
Advanced Building Materials and Construction	ARC 843	2
Project Management	ARC 885	2
Tourism Planning and Development	ARC 863	2
<b>TOTAL</b>		<b>22</b>

**(B) FIRST YEAR of Master of Science DEGREE (SECOND SEMESTER)**

<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>UNIT</b>
Advanced Architecture Design Studio II	ARC 812	10
Advanced Structures	ARC 858	2
Advanced Urban Design	ARC 816	2
Research Methods and Seminar	ARC 852	2
Advanced Building Services	ARC 862	2
Project Management II	ARC 886	2
<b>SUB TOTAL</b>		<b>20</b>

**(C) SECOND YEAR of Master of Science DEGREE (THIRD SEMESTER)**

<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>UNIT</b>
Advanced Architecture Design Studio III	ARC 813	12

Professional Practice and Procedures I	ARC 881	2
Environmental Impact Assessment	ARC 883	2
Entrepreneurship studies for Architects	ARC 839	2
<b>TOTAL</b>		<b>18</b>

**(D) SECOND YEAR of Master of Science DEGREE (FOURTH SEMESTER)**

<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>UNIT</b>
Advanced Architecture Design Studio IV	ARC 814	16
Professional Practice and Procedures II	ARC 882	2
Advanced Working Drawings and Specifications II	ARC 842	2
<b>TOTAL</b>		<b>20</b>

**29.2 LIST OF ELECTIVES**

<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>UNIT</b>
Tourism Planning and Development	ARC 863	2
Urban Renewal	ARC 831	2
Real Estate Management	ARC 887	2
Building Maintenance and Management	ARC 867	2
Entrepreneurship studies for Architects	ARC 839	2
Advanced Computer Aided Design	ARC 821	2
Site Management	ARC 839	2

**ARC 862      ADVANCED BUILDING SERVICES (2 Credit Units)**

Water pressure, velocity, demand/consumption calculations. Water installations; storage, reticulation, plumbing. Sanitary systems, sewage and waste disposal, drainage, sewage treatment.

Fire prevention methods, protection equipment, control systems, classification, material/component ratings, means of egress, National fire Safety code.

Electrical installation and equipment, load determination system. Electrical devices in building design. Lighting appliances, lifts. Safety protection and energy conservation. Lighting arrestors.

#### **ARC 816      ADVANCED URBAN DESIGN (2 Credit Units)**

Principles and techniques of design of large-scale spatial environments, issues in urban design including changing urban patterns; environmental and urban design policy and implementation in central urban and sub-urban area; development of new town concepts, cases studies.

#### **ARC 839      SITE MANAGEMENT (2 Credit Units)**

Site commissioning. Site meeting procedures, site instructions. Roles and responsibilities of the construction team. Public relations.

#### **ARC 867      BUILDING MAINTENANCE (2 Credit Units)**

These courses are designed to expose the students to all elements of buildings, their performance in use and the progressive deterioration in their conditions. Aspects of maintenance involving rehabilitation, repairs and restoration should be explained. The scope of the courses should also embrace the choice of materials and methods of construction for “maintenance-free” construction, programmes of maintenance works, production of maintenance manuals and the preparation of schedules of dilapidation and schedules of repairs. The student should be acquainted with the combination of technical and administrative actions required to retain or restore a building, service facility or parts thereof to a functional state, problems associated with maintenance, liability for defects and the technology and equipment for maintenance works. Maintenance consideration at the design stage – first cost and running cost should be stressed.

#### **ARC 857/858 ADVANCED ARCHITECTURAL STRUCTURES (2 Credit Units)**

Qualitative analysis of various structural systems (form-active, vector-active, bulk-active, surface-active and vertical structures) to illustrate design criteria needed for architectural decisions.

The relationship between structural behaviours and structural forms; morphology of forms – natural and man-made; economic and aesthetic suitability as applied to architectural problems.

#### **ARC 815      ADVANCED LANDSCAPE ARCHITECTURE (2 Credit Units)**

Methods of landscape planning and design, environmental constraints, landscape analysis and site planning; spatial relationship between architectural interiors and landscape, indoor pollution and landscape; traditional techniques/garden in history; identifying design principles and materials on traditional Nigerian and classical world gardens; modern landscape construction materials and techniques; principles of planning, design and selection; the use of natural resources e.g. vegetation, rocks, water etc. in urban landscapes and landscape impact assessment and conservation.

#### **ARC 852      RESEARCH METHODS AND SEMINAR (2 Credit Units)**

Formulation and test of hypothesis. Identification of dependent and independent variables, parameters etc. sampling techniques, constraints and bias, design of questionnaire instruments, the conduct of interviews, data collection; handling and analysis, application of research techniques to workshops and field situations. Presentation of findings, report processing and inclusion of response to subject matter.

#### **ARC 833      CONTEMPORARY ISSUES IN ARCHITECTURE (2 Credit Units)**

A project course where each student explores formal and spatial aspects of architecture by analytical studies (employing multi-disciplinary tools), presentations should be before a jury at the end of the semester.

#### **ARC 837      ARCHITECTURAL CRITICISM (2 Credit Units)**

Series of lectures exposing methods of critical inquiry which students might use in their work and apply in assessing works other than their own.

Aesthetics and Architecture – the idea of beauty. The nature of criticism in architecture; its role and fundamental concerns. Methods of critical inquiry, types of investigations (philosophical, historical, semiotic, psychoanalytic, etc.) Illustrations with buildings and projects.

### **ARC 841      WORKING DRAWINGS AND SPECIFICATION WRITING** **(2 Credit Units)**

It is designed to expose the concept of working drawings as graphical communication between the architect and the contractor, details as explanatory drawings of sections and elements, and variations in design arising from changing needs should be emphasised. Fully dimensioned drawings in appropriate scales, construction details of joints, stairs, structural elements and the incorporation of building services should be stressed.

Definition, principles, purposes and uses of specifications in architectural practice. Approaches to specifications writing. Specification of different types of building materials and components in the execution of building projects. Preparation of a document describing in detail the scope of work, quality of materials to be used, methods of installation and quality of workmanship. General conditions of contracts, building contract clauses; preliminary clauses; clauses on manufactured components. Specification writing of a selected simple project.

### **ARC 881/882 PROFESSIONAL PRACTICE AND PROCEDURE (2 Credit Units)**

The objective of the course is to enable the advanced student identify problems associated with the practice of the architectural profession and the parameters within which the architect works and buildings are produced. The course is designed to encourage awareness in the student of the ethics of the profession, relationship that exists between the environmental design team and the construction team, and intimating the student with some tools available to the professional architect in carrying out a viable practice.

#### **1. The ecology of Architectural practice in Nigeria:**

- the Architect in Nigerian society
- traditional and changing role of Architects
- the role of the Nigerian institute of Architects and

- Architects Registration Council of Nigeria.
2. Code of professional Conduct and the Architect's Scale of fees.
  3. Organization for urban development:
    - Agencies for urban development, planning law, planning
    - Authorities and planning approval processes;
    - Building regulations, easements and dilapidations,
    - Litigations and arbitration.
  4. Pre-contract service.
  5. Building contracts and tendering procedures;
  6. Aspects of building contract, administration and management
  7. Architect and his office:
    - Office organization
    - Partnership.
  8. Tendering – types, principles and techniques of tendering, form of tender and invitation to tender, documents, analysis and report.

### **ARC 883 ENVIRONMENTAL IMPACT ANALYSIS (2 Credit Units)**

This course deals with the understanding of the effect and influence of physical development, socio-economic and natural activities on the environment.

The student should be equipped to undertake a detailed analysis of various aspects of development and their impact on the environment and be able to produce an environmental impact analysis report. The various regulations, legislations that concern environmental protection and development control should be emphasized.

### **ARC 836 TOURISM PLANNING AND DEVELOPMENT (2 Credit Units)**

The meaning of tourism. Tourism and regional/national development. Elements of tourism, historical development of tourism in Nigeria. Potential and functional tourism resources in Nigeria. Management and organization of tourism and related activities. Impacts of tourism on the national economy. Development of tourist resort centres; design and implementation consideration.

#### **ARC 889      ENTREPRENEURSHIP (2 Credit Units)**

The ability to identify a business opportunity and finding resources to optimally utilize the opportunity. The course encompasses feasibility and viability studies, market opportunity identification analysis, capital acquisition, production management and cost control, risk analysis and management.

#### **ARC 831      URBAN RENEWAL (2 Credit Units)**

Urban renewal strategies as tools for city maintenance and improvement. Management of renewal schemes. Economic and social issues in urban renewal programmes. Benefits and cost of various urban renewal strategies. Case studies of urban renewal projects in Nigeria. Selected case studies from other African countries, Europe and North America.

#### **ARC 887      REAL ESTATE MANAGEMENT (2 Credit Units)**

Definition of real estate management. Economic, social, legal, technological, environmental and other dimensions of real estate management. Management functions in relation to real estate development and investment. Origins and theories of ownership. Financing land and land resource development and investment. Building and environmental surveys and report. Choice of site and various types of developments.

#### **ARC 814      ADVANCED ARCHITECTURAL DESIGN THESIS (16 Credit Units)**

Comprehensive project on a building type with emphasis on Research methodology – data collection/analysis, case studies, etc. A written report highlighting the design thesis to be submitted by the student. Students to choose their topics, subject to the approval of the department.

Interpretation and application of research findings in architectural designs to demonstrate the student's understanding of design problems based on the skills and knowledge acquired in all previous courses.

In the case of Studio work a jury system is the normal practice. A jury consisting of a number of competent persons examine the work of a student in a given studio assignment and award marks. The overall average amongst the jurors constitutes the overall mark of the student.

### **30.0 COLLEGE of ENVIRONMENTAL SCIENCES & MANAGEMENT Ph.D. ARCHITECTURE CURRICULUM**

#### **(A) FIRST YEAR OF Ph.D. ARCHITECTURE (FIRST SEMESTER)**

<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>UNIT</b>
THE LITERATURE OF ARCHITECTURE	ARC 911	4
RESEARCH METHODOLOGY FOR DOCTORAL STUDIES I	ARC 913	3
HOUSING AND URBAN INFRASTRUCTURE	ARC 915	3
LEADERSHIP AND DEVELOPMENT	GST 911	2
<b>Sub Total</b>		<b>12</b>
<b>TOTAL</b>		<b>12</b>

#### **(B) FIRST YEAR of Ph.D. ARCHITECTURE (SECOND SEMESTER)**

<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>UNIT</b>
MAN'S ENVIRONMENT STUDIES	ARC 912	6
RESEARCH METHODOLOGY FOR DOCTORAL STUDIES II	ARC 914	3
ADVANCED SUSTAINABLE ARCHITECTURE	ARC 916	3
		<b>12</b>
<b>TOTAL</b>		<b>12</b>

**(C) SECOND YEAR of Ph.D. ARCHITECTURE (THIRD SEMESTER)**

Course title	Course code	Unit
ADVANCED ARCHITECTURAL RESEARCH SEMINAR	ARC 921	4
CONTEMPORARY NIGERIAN ARCHITECTURE SEMINAR	ARC 923	4
STATISTICS FOR ENVIRONMENTAL SCIENCE RESEARCHERS	ARC 925	4
<b>TOTAL</b>		<b>12</b>

**(D) SEMESTER FOUR (4) – EIGHT (8) COMPLETION OF PROGRAM**

Course title	Course code	Unit
RESEARCH SEMINARS 1 & 2	ARC 941	8
RESEARCH PROPOSAL AND DEFENSE/PILOT STUDY REPORT		8
FIELDWORK/ POST FIELD PRESENTATION		8
SUPERVISED THESIS RESEARCH	ARC 942	6
THESIS (WRITE-UP) AND DEFENSE		6
<b>TOTAL</b>		<b>36</b>

*Note: All candidates shall cover a total of 72 units of course work and research work by the end of the programme.*

**30.1 Outline of Courses/Description**

Code	Title	Units	Description
ARC 911	The Literature of Architecture	4	A cursory look at contemporary architecture (styles, movements and underlying ideologies) and the

			influence on the current state of architecture and what we see around us. The Architects that influenced the world scene from 1900 to date, their major projects, guiding principles and publications. The students are expected to familiarize themselves with crucial theories and conceptual frameworks that guide the various aspects of studies in architecture.
ARC 912	Man's Environment Studies	6	A critical look at the interaction between man and the environment and how his activities constantly shape his world physically. Issues of infrastructure development, waste disposal, climate change as it affects the towns and cities are essential elements to be studied in this course. A Seminar paper is to be produced by student on particular issue of interest within the scope of the course.
ARC 915	Housing and Urban Infrastructure	3	The challenges of housing deficit and the slow rate of housing provision; the impact of Public, Private Partnership schemes; Indigenous materials and affordable housing; Housing quality and user satisfaction issues will be extensively studied in this course. Urban centers are constantly growing in human population and the attendant needs of the populace. The need for improved and increased housing and urban infrastructure cannot be overemphasized. The course examines the prescriptions of global agencies such as the world bank and United Nations among others, with a view of promoting good urban planning strategies and implementation techniques.
ARC 913	Research Methodology for Doctoral studies I	3	The importance of interest in doctoral studies; topic formulation; essentials of the Problem statement; situating the aim/goal of research and development of appropriate objectives with prior consideration of

			expected data. In-depth study of cross sectional surveys; the formulation of effective questionnaires and the technicalities involved in choosing the right analysis tools and packages.
ARC 914	Research Methodology for Doctoral studies II	3	The Course covers methods of Finding relevant literature and the review techniques. Furthermore, practical execution of the strategies raised is at the core of the course. Practical use of factor analysis, regressions, environmental simulations, Modeling techniques and other relevant quantitative analysis tools. Vital techniques and tools for qualitative analyses shall be practically studied.
ARC 916	Advanced Sustainable Architecture I	3	In-depth study of the workability of sustainable design principles in real life contexts. Cases of LEED certified buildings and the analysis of the scoring criteria shall be examined. Development of realistic methods of implementing these principles in common design works of architects. Each student shall select a case within the commercial hub of Lagos Island and prepare a comprehensive evaluation in accordance with sustainability compliance
ARC 917	Leadership and environmental development	3	Critical discourse on the subject of leadership at national and international levels and the corresponding effect on physical/environmental development. The course seeks to identify crucial leadership qualities and how architects can imbibe them in order to change the environment positively. Practical applications of the strategies for effective and productive leadership in the Nigerian context towards improved national development.

ARC 921	Advanced Architectural research Seminar	4	The course affords the doctoral student the opportunity to review satisfactory amount of published materials in appropriate area of interest towards a seminar paper submission and presentation. Practical lessons of the use of language to effectively communicate ideas in doctoral theses and term papers towards excellent documentation. Proof reading techniques and plagiarism checks.
ARC 923	Contemporary Nigerian Architecture Seminar	4	A study of contemporary Nigerian architecture and architects with comprehensive data gathered from both primary and secondary sources. The study is geared towards establishing true indigenous identity for the prevailing architectural style and principles that dictate the current urban scope of our cities.
ARC 925	Statistics for environmental science researchers	4	<p>The course promotes a good understanding of the importance of statistics to research in environmental sciences and management fields. The interpretations of the numbers given by different statistical tools with respect to real life situations. The concept of prediction and modelling in statistics. Managing the data in useful ways to influence society positively.</p> <p>The characteristic polynominal, the power method, Gwen and Household methods.</p>

### **31.0 COLLEGE OF POSTGRADUATE STUDIES COLLEGE of PURE and APPLIED SCIENCES (COPAS)**

#### **POSTGRADUATE STUDIES CURRICULUM**

#### **DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY**

#### **History of the Department**

The Department of Chemistry and Biochemistry was established in 2007 as one of the pioneer Departments in Caleb University Imota, Lagos. The first set of students was admitted into the two programmes, Biochemistry and Industrial Chemistry, offered in the Department in 2007.

The Department had a full NUC accreditation for the two programmes in July 2012. The Biochemistry program was given full re-accreditation while the Industrial Chemistry program had a referral in the 2017 exercise. The Industrial Chemistry program got full NUC re-accreditation in 2019.

Members of this department have distinguished themselves in their respective fields and won grants and fellowships both in Nigeria and overseas. A team from the department won a grant from Lagos state Research and Development Council (LSRDC) to investigate Environmental Pollution levels in blighted areas of the state.

### **Vision**

*“To be a world-class Department of Chemistry and Biochemistry providing Chemistry and Biochemistry education which empowers her graduates to contribute effectively to the advancement of scientific knowledge and its applications to solving societal environmental and technological problems.”*

### **Mission**

*“To provide wholesome and comprehensive training in the theory and practice of Chemistry and Biochemistry to stimulate intellectual inquisitiveness in her graduates; empowering them to solve developmental problems as they serve and provide leadership in their immediate society and the world at large”.*

### **Philosophy and objectives of Biochemistry PGD and M.Sc Programme**

The main aim and objectives of the PGD and M.Sc degree programme in Biochemistry are to:

- i. To produce high-level manpower in the sciences through the acquisition of requisite skills and knowledge, for national development.
- ii. To develop in s graduates a sense of inquiry, capacity for independent research and motivation to extend the frontiers of science and technology.

- iii. To produce graduates who will be adequately equipped for relevance in the global knowledge economy.
- iv. To produce graduates who are capable of applying appropriate scientific principles for solving problems for the promotion of human well being.
- v. To produce manpower with optimal competencies and skills to function effectively in academia and the private sector.
- vi. To produce a graduate who is able to apply their knowledge for clinical laboratory research in industries such as brewery pharmaceutical, foods and research institutes etc.

### **Admission Requirements for PGD Biochemistry:**

Prospective candidates of PGD in Biochemistry of Caleb University must have:

- i. All candidates must have five credit passes including English, Mathematics and two other relevant science subjects at 'O' Level.
- ii. Completed a BSc degree in Biochemistry of Caleb University or other universities with at least a third-class and
- iii. Higher National Diploma at Lower Credit Level in related fields such as Chemistry, Pharmacy, Agriculture, Chemical pathology (AIMLS), Microbiology, Food Science and Technology, Medical Laboratory Sciences (BMLS), Physiology or any of the disciplines in the sciences. This class of students will be required to take and pass General Biochemistry I & II in addition to the units recommended for the PGD programme.

### **Admission Requirement for M.Sc Biochemistry**

- i. All candidates must have five credit passes including English, Mathematics and two other relevant science subjects at 'O' Level.
- ii. Candidates with Bachelor's degrees from an approved university must obtain a minimum of second class lower division with a CGPA of 3.0/5.0 for an academic programme.

- iii. Candidates with at least a third-class degree or HND and university PGD with a CGPA of 3.0/5.0 may be considered for admission into academic Master's degree programmes.

Candidates may be required to undergo a selection process that may involve oral or written examination as decided by the department.

### **GRADUATION REQUIREMENTS FOR M.Sc. BIOCHEMISTRY**

To be awarded a Master's degree candidate must pass a minimum of 30 credit units made up as follows:

- i. A full-time Academic Master's Programme should run for a minimum of 3 semesters and a maximum of 5 semesters while a full time
- ii. Part-time Academic Master's programmes should run for a minimum of 5 semesters and a maximum of 8 semesters while part-time Professional Master's programme should run for a minimum of 5 semesters and a maximum of 7 semesters.
- iii. For extension beyond the specified maximum period, special permission of the Senate shall be required.
- iv. Core courses of 24 credit units, including the general courses, projects and seminars.
- v. Elective courses of 6 credit units, including 4 credits units from innovative programs within the allowable maximum.
- vi. A student shall present at least one seminar, submit and defend a thesis proposal. A student for Professional Master's degree programme shall present a project report and a seminar which may be defended.
- vii. A student for an Academic Master's degree programme shall carry out research in a relevant area of specialization and submit an acceptable thesis (six credit units compulsory) which must be defended before a panel of external and internal examiners
  - (i) The candidate must spend three semesters full-time to study the programme.
  - (ii) The candidate must pass at least 36 units of courses including all compulsory courses. For non-biochemistry majors, the candidate must pass 40 units of courses
  - (iii) The candidate must register for 6 units of a research project which will be examined orally by a board of examiners (including an external examiner).

Such candidate must present a public seminar on the completed research before the oral examination

(iv) The candidate must satisfy all other conditions stipulated by the Caleb University regulation governing post-graduate studies.

(v) Part-time students must spend a minimum of 6 semesters.

i – iv above represents the graduation requirements as provided in the BMAS.

### **Progress report**

The Department has experienced great development in the areas of teaching and research. The members of staff of the department are well exposed and informed.

The laboratory is well stocked with major state of the art equipment both for teaching and research. These include UV-Visible Spectrophotometer, Gas Chromatograph and Atomic Absorption Spectrophotometer (AAS). An immunology laboratory has been established in the department. A modern Enzyme-Linked Immuno-Sorbent Assay Reader with a washer and printer has been installed in the immunochemistry unit of the laboratory.

### **REGISTRATION FOR COURSES IN THE COLLEGE**

Registration is a very important aspect of the academic activities of students on campus. Registration takes place at three levels, the university level, the postgraduate school and the Department level. A student must complete registration at all three levels every semester to be considered a *bonafide* student of the University. Incomplete registration usually gives rise to the embarrassment which is better avoided. It is the responsibility of a student to subject himself/herself to full registration and the summary of the registration procedure is given here to assist students to fulfil this important obligation.

1. Registration starts at the Registry where fresh students confirm their admission and returning students confirm their standing, and collect necessary registration forms. Original credentials of fresh students are checked at this stage to ensure that they have the required minimum admission qualification.

2. The registration continues at the Bursary where students convert their bank tellers to official receipts and get their registration forms endorsed to confirm good financial standing.
3. Students with good financial standing then report back to the Registry to conclude their registration in the Registry. Fresh students are given matriculation numbers at the stage.
4. Next is medical registration at the University Health Centre. The University Students' Handbook contains information about registration at the Health Centre. Only students who have completed their registration at the Health Centre can have their space allocation in the Hall of Residence confirmed.
5. Part of the registration documents given to students who successfully conclude their registration at the Registry is a clearance for registration for courses to be taken by the students at the Colleges.
6. Fresh students registering in COPAS are required to have two copies of the following documents –
  - a. Birth certificate
  - b. Admission letter
  - c. B.Sc or HND result
  - d. O-level results (NECO & WAEC)

One set of these documents is to be submitted to the student's department and the other at the College office for the student's file.

7. A fresh student should find out from his/her departmental secretary the name of his/her postgraduate coordinator and go to him/her for counselling before completing the course registration forms.
8. If the registration has been correctly done, the student will receive a mail conveying approval for his/her registration. Copies will be automatically sent to the College Dean, Academic Officer and the student's Head of Department. The course tutor for each course to be taken by the student is also sent advice and the student's name will be automatically inserted in the Attendance List for lectures for the Course.
9. The student is advised to print out a copy of his registration form at this point for his/her record.

## **REGULATIONS OF THE COURSE SYSTEM AND RULES GOVERNING THE AWARD OF DEGREES**

Caleb University operates the course credit system of instruction in line with the recommendation of the National Universities Commission (NUC). The basic provisions of the general regulations of the course system are summarised below.

1. One course credit unit is attached to one hour of lecture or tutorial per week per semester of fifteen weeks. In other words, one credit unit is equivalent to 15 hours of lectures or tutorials per semester. One credit unit is also attached to:
  - a. Two hours of seminar per week per semester
  - b. Three hours of laboratory or fieldwork per week per semester
2. The curriculum for a programme is divided into courses.
3. Each course has an attached credit unit and it is identified by a course code of three characters followed by a three-digit number. The three characters of the code identify the subject (e.g. BCH for Biochemistry) and the numbers identify the level at which the course is offered as follows –
  - a. 700 – 799 for courses offered at PGD courses
  - b. 800 – 815 for courses offered at M.Sc courses. Odd numbers (e.g. 701) normally signify courses offered in the first semester, while even numbers (e.g. 702) are for courses offered in the second semester.

### **DISTRIBUTION OF PROGRAMME COURSE STRUCTURE (L = Lectures, P = Practicals, T = Tutorials, U = Credit Units)**

**NOTE:** Two (2 no) contact hours of Practical per week is equal to one (1 No) contact hour of lecture and one (1 no) contact hour of Tutorial which is one credit unit.

#### **31.1 COURSE SYNOPSIS/DESCRIPTION PGD-BIOCHEMISTRY**

TABLE 1: DISTRIBUTION OF PROGRAMME COURSE STRUCTURE (L = Lectures, P = Practicals, T = Tutorials, U = Credit Units)

**NOTE:** Two (2) contact hours of Practical per week is equal to one (1) contact hour of lecture and one (1) contact hour of Tutorial which is one credit unit.

Comprehensive introduction of the Chemistry and metabolism of biomolecules, information processing, in plants and animals. The biochemical methodology includes modern techniques for isolation, identification and quantification of biomolecules. All candidates for the PGD-

BIOCHEMISTRY shall complete a minimum of 30 units. No applicant may transfer more than 9 units from accredited institutions into the programme. All PGD students shall complete the following required and elective courses.

<b>FIRST SEMESTER</b>			
<b>First Semester - Full-Time (First and Second Semesters - Part-Time)</b>			
<b>Required 700 Level Courses</b>			
BCH 701	General Biochemistry I	R	2
BCH 703	Technique of Biochemistry	R	2
BCH 705	Seminar and Independent Study in Biochemistry	R	2
BCH 707	Biostatistics	R	2
BCH 711	Structure and Function of Biomolecules	R	2
BCH 713	Enzymology	R	2
BCH 719	Biochemistry Toxicology & Environmental Biochemistry		2
<b>SECOND SEMESTER</b>			
<b>Second Semester - Full-Time (Third and Fourth Semesters - Part-Time): Elective</b>			
<b>700 Level Courses minimum of 12 units to be selected from the following</b>			
With the approval of the Department, 3 to 6 Units of postgraduate (700 or 800) level courses from other departments may be substituted as elective courses.			
BCH 702	General Biochemistry II	E	2
BCH 704	Biotechnology and Genetic Engineering	E	2
BCH 706	Molecular Biology	E	2
BCH 708	Immunology	E	2
BCH 716	Biomembrances	E	2
BCH 724	Plant Biochemistry	E	2
BCH 726	Applied Spectroscopy (INNOVATIVE)	E	2
<b>THIRD SEMESTER (LONG VACATION)</b>			
<b>Third Semester (Long Vacation) - Full-Time (Fifth Semester - Part-Time):</b>			
<b>Compulsory 700 Level Courses (6 units)</b>			
BCH 799	Diploma project	C	6

**Duration**

**Full-Time:** The full-time programme will run for three semesters, one academic session of two semesters and the long vacation which follows, which shall be used for a research project.

**Part-Time:** The part-time programme shall run for four semesters.

**GRADING SYSTEM AND GRADUATION REQUIREMENTS FOR PGD**

The following grading system would be adopted:

Score Range	0 -39	45 - 49	50 – 59	60 – 69	70 and above
Grade Point	0	2	3	4	5
Letter Grade	F	D	C	B	A

To qualify for the award of PGD-BIOCHEMISTRY at Caleb University, a candidate must:

- Take and pass at least 30 units of courses which must include BCH 799 and BCH 701.
- Student who obtains Cumulative Grade Point Average (CGPA) of 4.50 or higher will graduate with a Distinction
- Student who obtains CGPA of 2.40 or higher but less than 4.50 will graduate with a Pass.
- Student who has obtained a CGPA of 1.5 but less than 2.40 will be allowed to repeat (Fail/Repeat).

**(i) COURSES AVAILABLE IN PGD BIOCHEMISTRY**

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>
BCH 701	General Biochemistry I	3
BCH 702	General Biochemistry II	3
BCH 703	Technique of Biochemistry	2
BCH 704	Biotechnology and Genetic Engineering	2
BCH 705	Seminar and Independent Study in Biochemistry	2
BCH 706	Molecular Biology	2
BCH 707	Biostatistics	2
BCH 708	Immunology	2

BCH 711	Structure and Function of Biomolecules	2
BCH 713	Enzymology	2
BCH 716	Biomembranes	2
BCH 719	Biochem. Toxicology Environmental Biochemistry	2
BCH 724	Plant Biochemistry	2
BCH 799	Research Project	6

## (ii) COURSE DESCRIPTIONS

All the courses listed below may not be offered every year. Those available will depend on staffing.

### **BCH 701 & BCH 702: General Biochemistry I, II** *(3-3) – 6 units*

A comprehensive introduction to the chemistry and metabolism of biomolecules, information processing, protein synthesis and regulation in bacterial, plants and animals. Emphasis on problem solving and biochemistry methodology: modern techniques for isolation identification and quantification of biomolecules.

### **BCH 703: Technique of Biochemistry** *- (0-0-2)-2 Units*

An intensive integrated laboratory experience in protein chemistry, enzymology and the physical characterization of macromolecules: nucleic acid isolation, characterization and synthesis. Introduction to the use and application of spectrophotometry, electrophoresis, chromatography, amino acid analysis, the general principle in extraction, isolation and purification of biomolecules, centrifugation, isotope technique and writing of scientific papers.

### **BCH 704: Advanced Biotechnology and Genetic Engineering** *– (2-0-2)-2 Units*

Introduction to biotechnology, examples and application of genetic manipulations in area of human health, food agriculture and horticulture, energy, raw materials, chemicals and environmental management, techniques of nucleic acid analysis including fractional, purification and hybridization. Enzymes and vectors employed in recombinant DNA technology, construction and analysis of recombinant DNA.

**BCH 705: Seminar and Independent Study***- (0-2) – 2 Units*

Each student will deliver at least three seminars following an extensive literature review on a topic approved by the department. A written paper on a specific subject or problem of current interest in biochemistry will also be submitted.

**BCH 706: Molecular Biology***- (2-0-2) – 2 Units*

Physicochemical properties of nucleic acids, mechanism and control of DNA, RNA and protein biosynthesis. Sequencing of DNA, RNA molecules. Gene organization, molecular cloning DNA damage and repair. Aspects of molecular biology, cancer, biochemistry of viruses and cells.

**BCH 707: Biostatistics***- (2-0-2) – 2 Units*

The use of parametric tests (t-test, analysis of variance, etc .) and non-parametric in Biochemistry. Multiple and partial correlation and regression. Multivariate statistical analysis (principal component analysis, factor analysis, canonical correlation, cluster analysis, etc.

**BCH 708: Immunology***- (2-0-2) – 2 Units*

The structure, biosynthesis of antibodies. Molecular basis of antigenicity and the nature of the antibody-antigen reaction. Transplantation and tumour immunology.

**BCH 711: Structure and Function of Biomolecules***(2-0-2) – 2 Units*

Structure and nutrient analysis of information biomolecules, protein and nucleic acids and other biomolecules, methods of isolation, purification characterization and sequence analysis.

**BCH 713: Advanced Enzymology***- (2-0-2) – 2 Units*

Kinetics of enzyme catalysed reactions, mechanisms involving coenzymes, regulatory properties of enzymes, and control mechanisms of enzyme activity. A detailed study of enzyme in diagnosis, hormone assays and other techniques used in the analysis of clinical specimens. Clinical metabolic studies and the role of water and electrolyte balance in clinical chemistry.

**BCH 716: BIOMEMBRANES***-(2-0-0)-2 Units*

Characterization and composition of membranes, the structure of membranes, mechanism of assembly of membranes, cell communication in a biological system, membrane receptors, plasma membrane and cytoskeleton, electron transport and oxidative phosphorylation. Effect

of environmental factors on synthesis assembly and functions of membranes. Current models of biomembranes.

**BCH 719: Biochemical Toxicology And Environmental Biochemistry -(2-0-0)-2 Units**

A detailed survey of toxicology drugs: chemicals and insecticides mode of action, mode of action of toxins. Structural activity and relationships of these compounds, analysis of cell damage and cell death. Biochemical pollutants in air, land and sea. Allergens, their detection. Bioassay and effects, pesticides and their residues. Biochemical interconversion and their importance in agriculture and human health. Carcinogenesis and industrial toxicology.

**BCH 721: Industrial Biochemistry**

**-(2-0-0)-2 Units**

Enzyme biotechnology, enzymes reactors, the use of isolated enzymes from microbial plants and other sources as well as enzymes in intact organisms in the brewery, food, pharmaceuticals, agriculture, environmental, energy, medical and chemical industries, fermentation pathways in direct micro-organism and the control of fermentation products in industrially important micro-organism. Microbial transformation of drugs.

**BCH 724: Advanced Plant Biochemistry**

**-(2-0-0)-2 units**

Advanced biochemistry of plant hormones, photosynthesis, carotenoid pigments, oxidative phosphorylation, synthesis of plant macromolecules metabolism of toxins giberelins and cytokines, molecular biology of plant cells, tumour cells plasmids and biotechnology.

**BCH 724: Applied Spectroscopy (Innovative)**

**-(2-0-0)-2 units**

An overview of all the spectroscopic techniques and spectrum analysis

**BCH 799: Research Project (Master Thesis)**

**- 6 Units**

The original investigation into an approved biochemical problem under the supervision of an approved supervisor.

**M.Sc. COURSE STRUCTURE AND SYNOPSIS**

*(i) First Semester*

Course code	Title	Unit	Remarks
SCI 801	Management and Entrepreneurship	2	Core

BCH 801	Advanced Metabolism & Control	2	Core
BCH 803	Biostatistics	2	Core
BCH 805	Nutritional Biochemistry	2	Core
BCH 807	Molecular Biology & Biotechnology	2	Core
BCH 809	Biochemical Reasoning	1	Elective
BCH 811	Xenobiochemistry & Toxicology	2	Elective
BCH 813	Industrial Biochemistry	2	Elective
BCH 815	Seminar	2	Core
<b>TOTAL</b>		<b>17</b>	

(ii) ***Second Semester***

Course code	Title	Unit	Remarks
SCI 802	ICT and Research Methodology	2	Core
BCH 802	Advanced Enzymology	2	Core
BCH 804	Research Techniques in Biochemistry	2	Core
BCH 806	Medical Biochemistry	3	Core
BCH 808	Membrane Biochemistry	2	Elective
BCH 810	Immunochemistry	2	Elective
BCH 812	Bioinformatics	2	Elective
BCH 816	Applied Spectroscopy (Innovative)	2	Elective
BCH 817	Instrumental Analysis (Innovative)	1	Elective
<b>TOTAL</b>		<b>15</b>	

(i) ***Third Semester***

Course code	Title	Unit	Remarks
BCH 814	Research Project	6	Core
<b>TOTAL</b>		<b>6</b>	

(i) ***Elective Courses***

Advanced Metabolism & Control (for non-Biochemistry major only) 2 units

(b) **Register for NOT less than 14 units course on a full-time basis in a semester.**

**Part-time students should register for not less than 10 units per semester.**

(c) Sit for written papers on all courses registered for at the end of each semester.

The Master Programme in Biochemistry emphasizes the comprehensive introduction of the chemistry and metabolism of biomolecules, information processing, in plants and animals, Biochemical methodology including modern techniques for isolation, identification and quantification of biomolecules. **Non-biochemistry major candidates must attend practical classes.**

The courses available are: BCH 801, BCH 802, BCH 803, BCH 804, BCH 805, BCH 806, BCH 807, BCH 808, BCH 809, BCH 810, BCH 811, BCH 812, BCH 813, BCH 814, BCH 815.

### **31.2 COURSE STRUCTURE MASTER OF SCIENCE (M.Sc) DEGREE IN BIOCHEMISTRY**

**To qualify for a Master of Science (M.Sc) degree in Biochemistry a candidate must register for and pass a minimum of 24 units of courses as follows:**

#### **COURSES AVAILABLE IN M.Sc Biochemistry**

##### **Masters Degree in Biochemistry - Summary**

<b>Course code</b>	<b>Title</b>	<b>Unit</b>	<b>Remarks</b>
BCH 801	Advanced Metabolism & Control	2	Core
BCH 802	Advanced Enzymology	2	Core
BCH 803	Biostatistics	2	Core
BCH 804	Research Techniques in Biochemistry	2	Core
BCH 805	Nutritional Biochemistry	2	Core
BCH 806	Medical Biochemistry	3	Core
BCH 807	Molecular Biology & Biotechnology	2	Core
BCH 808	Membrane Biochemistry	2	Elective
BCH 809	Biochemical Reasoning	1	Elective
BCH 810	Immunochemistry	2	Elective
BCH 811	Xenobiochemistry & Toxicology	2	Elective
BCH 812	Bioinformatics	2	Elective
BCH 813	Industrial Biochemistry	2	Elective
BCH 816	Applied Spectroscopy (Innovative)	2	Elective

BCH 817	Instrumental Analysis (Innovative)	1	Elective
BCH 814	Research Project	6	Core
BCH 815	Seminar	2	Core

## COURSE DESCRIPTIONS

All the courses listed below may not be offered every year. Those available will depend on staffing.

### **BCH 801      Advanced Metabolism and Control      (2 Credit Units)**

Review of intermediary metabolism of carbohydrates, proteins, lipids and nucleic acids. Recent advances in these areas. Regulations of metabolism; enzymatic and hormonal. Neurochemistry and neurological disorders

### **BCH 802      Advanced Enzymology      (2 Credit Units )**

Classification and nomenclature of enzymes. Isolation and purification of enzymes. Specificity of enzymes action. Kinetics of single substrate enzyme-catalyzed reaction. Enzyme inhibitions. Kinetics of multi-substrate enzyme-catalyzed reaction. Investigations of the structures of the active site of enzymes. Applications of enzyme technology; immobilized enzymes. Use of enzymes in industries, medicine, agriculture etc. Ligand binding. Kinetics of multi-binding sites, Adair's equation. Sigmoidal kinetics and allosteric enzymes. MWC and KNF models of allosteric regulation. Sigmoidal kinetics in the absence of cooperative binding. Kinetics of fast reactions. Structure and mechanism of catalysis. Recent Advances in enzyme Technology

### **BCH 803      Biostatistics      (2 Credit Units)**

Biostatistics: Definition, scope and applications. Presentation of data. Overview of measures of central tendency. Chi-square test. Scientific writing I. (a) Biostatistics; Population and sample size. Sampling distribution. Research design. Study of some classical papers for experimental design and presentation of data. Normal, Binomial and Poisson distributions. Tests of significance. Students t-test. Analysis of variance (ANOVA). One way and two way ANOVA. Regression Analysis. Simple and multiple regression. Overview of non-parametric tests. Statistical packages; Graphpad Instat, Minitab, SAS, Epi Info, and SPSS.

**BCH 804      Research Techniques In Biochemistry      (2 Credit Units)**

Gradient centrifugation and ultracentrifugation, Immunochemical techniques:  
Radioimmunoassay and enzyme-linked immunoassay, etc

Isotopic techniques. Electrophoresis, Chromatography: Ion-exchange chromatography, gel filtration, GC, hydrophobic interaction chromatography, affinity chromatography etc. Absorption spectrophotometry (Principles, techniques UV, vis, fluorescence) applications to macromolecular structures.

**BCH 805   Nutritional Biochemistry** **(2 Credit Units)**

Dietary essentiality of carbohydrates and lipids. Concept and biological value of proteins. Physiological function and biochemical mechanism of action of vitamins and inorganic nutrients. Metabolic interaction of nutrients. Proximate composition of foodstuff; estimation of fibre, additives, vitamins, trace minerals and amino acids. Food sensitivity and toxicology. Biochemical assessment of nutritional status. Adaptive response to undernutrition. Alcohol, sugar and fibre nutrition, protein-energy malnutrition (PEM). Micronutrients deficiency diseases.

**BCH 806 Medical Biochemistry (3 Credit Units)**

Biochemical concept of clinical state, metabolic derangement in diseased state e.g. gout, cholera, cancer, anaemia, kwashiorkor. Biochemical basis of and lesion in genetic diseases e.g. sickle cell anaemia, etc. Case studies on metabolic defects e.g. human haemoglobin and molecular diseases, e.g. sickle cell anaemia. Glucose-6-phosphate dehydrogenase deficiency. Disorders of carbohydrate and lipid metabolisms (Diabetes, plasma lipid and coronary heart disease, cholesterol partition in plasma lipoprotein). Inborn errors in metabolisms. Molecular parasitology: Isolation, fractionation and culture of parasites. Comparative metabolic reactions of the malarial parasite, trypanosome, and other parasites. Chemotherapy and resistance. Plasma isoenzyme profile in a disease state. Plasma protein and A/G ratio. Liver function test. Case studies on metabolic defects; phenylketonuria, orotic aciduria and pseudohypoparathyroidism.

**BCH 807 Molecular Biology and Biotechnology (2 Credit Units)**

Bacterial and viral chromosomes. Bacterial plasmids. Replication, transcription and translation of prokaryotic genomes. Regulation of protein biosynthesis. Transposons as mobile genetic

elements. Eukaryotic chromosome and its ultrastructural organization. DNA synthesis in eukaryotes.

The biochemical aspect of cell division, cell cloning and cell fusion. Biochemistry of growth and differentiation in eukaryotes. Principle of PCR technique. Isolation and purification of RNA and DNA. Hybridization techniques. Recombinant DNA technology and proteomics applications (e.g, production of insulin, drugs etc). Microarray. Genetic engineering and its social implications.

**BCH 808      Advanced Membrane Biochemistry      (2 Credit Units)**

Membrane structure and function. Membrane-linked phenomena; ion transport. Morphology of membranes. Membrane biogenesis. Membrane carbohydrates and cell surface specificity/antigenic projection. Ionophoric antibiotics. Membrane dynamics. Excitable membranes. Neurotransmitters. Membrane receptors and signalling/transduction. Photobiology. Photosynthesis and Calvin cycle. Recent advances in Membrane research, e.g. roles of liposomes etc.

**BCH 809      Biochemical Reasoning      (1 Credit Unit)**

**BCH 810      Immunochemistry      (2 Credit Units)**

The immune system. Structure and functions of primary and secondary lymphoid organs. Chemistry and biological properties of immunoglobulin. Antibody diversity, antigen, and the complement system. Inflammation, macrophages, leucocytes, phagocytosis. Abnormalities in the immune system; Immuno-oncology, HIV, etc. Immunochemical techniques

**BCH 811 Xenobiochemistry and Toxicology      (2 Credit Units)**

Natural and environmental toxicants. Food toxicology and carcinogens. Detoxification of toxicants. Drug and selective toxicity. Microbial and insects metabolism of xenobiotics. Resistance to drugs and pesticides. Metabolism as a determinant of toxicity. Assessment of toxicity

**BCH 812 Bioinformatics      (2 Credit Units)**

Scripting, use of computer programme, installation of programs and navigation. Sequence BLASTING, gene sequence alignment, primer design. Phylogenetic analysis, protein alignment. Data mining.

**BCH 813 Industrial Biochemistry****(3 Credit Units)**

The biochemical industry: an overview of manufacturing and allied industries involving biochemistry at the various operation levels (viz, R D & P, raw materials processing, production, quality control/assurance, etc). Role of biochemistry in selected manufacturing and allied industries: dairy, brewing, cosmetics, food concentrates textile, laundry, etc (use of enzymes, natural products, etc). Raw materials biochemistry: science/technology of large-scale (commercial) production of industrial enzymes, vitamins, food additives, natural products, antibiotics, etc from plants, animals and microbes for the industry; export market, economics etc. Science/technology of food concentrate fruit juice etc. production. Biotechnology. Industrial analytical biochemistry: quality control and assurance; the public analysts; analytical kits RD&P.

**BCH 814 Research Project****(6 Credit Units)**

Independent research in selected areas of Biochemistry and Molecular Biology under the supervision of academic staff. Students will be required to carry out a literature survey on the topic, perform an experiment and produce a dissertation. The submitted project report shall be defended before a panel of internal and external examiners.

**BCH 815: Seminar and Independent Study****(2 Credit Units)**

Each student will deliver at least three seminars following an extensive literature review on a topic approved by the department. A written paper on a specific subject or problem of current interest in biochemistry will also be submitted.

**BCH 816: Applied Spectroscopy****(2 Credit Units)**

An overview of the various spectroscopic techniques and interpretation of results

**BCH 817: Instrumental Analysis****(1 Credit Unit)**

Encompasses the understanding of the operation of different analytical methods and their components.

**SCI-801 Management and Entrepreneurship (2 Credit Units)**

The course will cover business environment, general management, financial management, entrepreneurship development, feasibility studies, marketing and managerial problem-solving.

## **SCI 802 ICT and Research Methodology (2 Credit Units)**

This course should cover the essentials of Spreadsheets, Internet technology, Statistical Packages, Precision and Accuracy of Estimates, Principles of Scientific Research, Concepts of Hypotheses Formulation and Testing, Organization of Research and Report Writing.

### **31.3 M.Phil & PhD BIOCHEMISTRY**

#### **Philosophy**

Generally, the **philosophy** of postgraduate programmes in Science is anchored on unbiased and systematic observations, accurate documentation and interpretation of facts and phenomena with a view to generating a body of knowledge.

Specifically, the Philosophy of the Doctoral Degree Programme in Biochemistry is to produce highly skilled biochemists for the industries, academic and research purposes.

#### **Aims and Objectives**

Generally, the aims and objectives of postgraduate programmes in Sciences are:

- i. To produce high-level manpower in the sciences through the acquisition of requisite skills and knowledge, for national development.
- ii. To develop in science graduates a sense of inquiry, capacity for independent research and motivation to extend the frontiers of science and technology.
- iii. To produce graduates who will be adequately equipped for relevance in the global knowledge economy.
- iv. To produce graduates who are capable of applying appropriate scientific principles for solving problems for the promotion of human well being.
- v. To produce manpower with optimal competencies and skills to function effectively in academia and the private sector.

Specifically, the M. Phil. M.Phil./ PhD and PhD degree programmes in Biochemistry is to:

- a. Prepare students for an academic career in research and teaching at tertiary institutions and related professional areas.

- b. Prepare and train interested candidates for clinical laboratory research in industries such as brewery, pharmaceutical, life sciences, food industry, research institutes etc.
- c. Prepare the holders of the degrees to handle research in various fields of life science, medicine and to work effectively in petrochemical and allied industries.

### **Rationale/Justification**

- i) The Department of Chemistry and Biochemistry, COPAS, Caleb University has graduated nine sets of B.Sc. degree students and there is a need for our students to have the opportunity to do their postgraduate programmes in the Department. Many who have proceeded for M.Sc. degrees in other Universities are eager to enrol for M. Phil. M.Phil./PhD and PhD in Caleb Universities.
- ii) Besides, the requisite staff to teach the programmes are available, and
- iii) The programmes conform with the mission of Caleb University as well as the National Policy on Education.

### **Admission Requirements**

- I. All candidates must have five credit passes including English, Mathematics, Chemistry and any other two other relevant science subjects at 'O' Level.
- II. Candidates with Bachelor's degrees from an approved university must obtain a minimum of Second Class Lower Division with a CGPA of 3.0/5.0 for an academic programme.
- III. Candidates with at least a third-class degree or HND and university PGD with CGPA of 3.0/5.0 may be considered for admission into the academic Master's (M.Sc.) degree programme.
- IV. Candidates must have an Academic Master's degree in relevant areas with a CGPA of 4.0/5.0 and a thesis score not lower than 60% (B).
- V. Prospective candidates applying for M. Phil. M.Phil./ PhD and PhD of Caleb University must have completed an M.Sc. degree in Biochemistry of Caleb University or any other university with accredited M.Sc. Biochemistry programme or Clinical Biochemistry (Chemical Pathology) with a minimum pass mark of 60% for PhD, 55-59% for M.Phil./ PhD and 50-54 % for M. Phil.**

**(IS THIS AGREED BY THE COLLEGE BOARD?)**

- VI. The programme is also open to any candidate holding a good degree in closely related fields to Biochemistry such as Pharmacology, Physiology, Agricultural sciences, Haematology, Microbiology and other related disciplines who possess good grades as stated above. This class of students may be required to take and pass some 500 level courses on the advice of the Department.
- VII. Candidates that have completed M. Phil. or M.Phil./ PhD who possess good grades are also eligible for admission into the PhD programme.
- VIII. Candidates must demonstrate adequate intellectual capacity, maturity and effective decision making and problem-solving potentials.
- IX. Candidates who are not products of Caleb University may need to audit some courses as decided by the postgraduate committee of the department.
- X. The candidate must present a seminar on the proposal of his/her chosen area of Biochemistry.

Selection of candidates for admission will be done by the Department.

## **GRADUATION REQUIREMENTS**

### **1. Master's:**

To be awarded a Master's degree candidate must pass a minimum of 30 credit units made up as follows:

- Core courses of 24 credit units, including the general courses, projects and seminars.
- Elective courses of 6 credit units
- A student shall present at least one seminar, submit and defend a thesis proposal. A student for Professional Master's degree programme shall present a project report and a seminar which may be defended.
- A student for an Academic Master's degree programme shall carry out research in a relevant area of specialization and submit an acceptable thesis (six credit units compulsory) which must be defended before a panel of external and internal examiners

### **2. Doctoral (PhD):**

Doctorate (PhD) programmes should primarily be by Research. However, Departmental Postgraduate Committee may prescribe some courses of not more than

12 credit units be taken by the candidates. A Doctoral (PhD) Thesis of 12 credit units **MUST** be defended before a Panel of Internal and External Examiners.

- A student shall present at least two seminars, submit and defend a thesis proposal.

A student shall carry out research in a relevant area of specialization and submit an acceptable thesis.

Arising from the provisions of the PG BMAS (1 and 2) above are the following specific graduation requirements:

- I. Research Project: The candidate shall be required to carry out a research project in the area of biochemistry. A thesis supervised by academic staff in the same area of specialization with a distinct contribution to knowledge shall be submitted for examination.
- II. The candidate must submit well-prepared reviews in five areas of biochemistry and present seminars on the reviewed topics.
- III. The candidate must have passed all necessary exams including practical, reviews and seminars.
- IV. The candidate must present a post-field seminal in the presence of all Heads of Departments, PG representatives and all Senior lecturers and professors in the College.
- V. The candidate must submit a research project (thesis) which will be examined orally by a board of examiners (including external examiner, internal examiner, representative of the postgraduate school). Such a candidate must present a public seminar on the completed research before the oral examination. The candidate must have a good grade in BCH 909. The candidate must publish at least two (2) articles in indexed journals from the work.
- VI. The candidate must satisfy all other conditions stipulated by the Caleb University regulation governing post-graduate studies.

### **Specific requirement for graduation**

**\*\*A candidate may graduate with M.Phil if he/she has CGPA <3.0 in the course work with seminar (24 units) and dissertation (12 units). Any candidate who registers for M.Phil can proceed to PhD if the CGPA is  $\geq 3.0$ .**

**\*\*MPhil/PhD candidate will be allowed to convert to PhD after satisfying 8 (I-IV).**

**\*\*A candidate will be qualified to bag PhD degree in Biochemistry after satisfying 8 (I-VI).**

Supervisory Committee for M. Phil. M.Phil./ PhD and PhD

Head of Department - Chairman

1. Major supervisor - Member
2. Internal supervisor - Member
3. External supervisor for cognate department/ faculty - member

Examination of Thesis/ Dissertation

1. Head of Department - Chief Examiner
2. Major supervisor
3. Sub-dean PG School must be present. In case the sub-dean belongs to the faculty, another PG school representative shall be nominated by the PG school.
4. The external examiner who must be at least a reader.
5. Cognate faculty representative.

*Non-Biochemistry major candidates will be asked to audit some courses as may be decided by the Department.*

## **5.0 COURSE STRUCTURE AND SYNOPSES/DESCRIPTION**

<i>Course Code</i>	<i>Course Title</i>	
<i>Units</i>		
BCH 901	Nutritional biochemistry	2
BCH 902	Endocrinology	2
BCH 903	Neurochemistry	2
BCH 904	Biotechnology and Genetic Engineering	2
BCH 905	Electrolytes and tissue biochemistry	2
BCH 906	Molecular Biology	2
BCH 907	Medical Biochemistry	2
BCH 908	Immunology	2

BCH 909	Biostatistics	3
BCH 911	Structure and Function of Biomolecules	2
BCH 913	Enzymology	2
BCH 916	Biomembranes	2
BCH 917	Immunochemical Techniques	2
BCH 919	Toxicology / Environment Biochemistry	2
BCH 924	Plant Biochemistry	2
BCH 999	Theses	12

**NOTE: Most of the courses listed are innovative**

Every candidate must present five seminars and 5 long essays each from different fields of biochemistry (as will be determined by the department, **an innovative addition**) listed in SECTION 7. Advanced Biostatistics is a compulsory course which must be passed by every student.

**Non-biochemistry major candidates will be asked to audit some courses as may be decided by the department.**

**Expected Duration of the Programmes**

Programmes	Type	Minimum Period	Maximum Period
M. Phil.	Full-time	4 semesters	6 semesters
	Part-time	6 semesters	8 semesters
M.Phil./ PhD	Full-time	6 semesters	8 semesters
	Part-time	8semesters	10 semesters
PhD direct	Full-time	6 semesters	10 semesters
	Part-time	8 semesters	12 semesters

**ACADEMIC REGULATIONS**

**i) Academic Session**

An academic session consists of two semesters. Each semester normally comprises 15 weeks of teaching and two weeks for examinations.

ii) **Modular System**

All postgraduate programmes shall be run on a modularized system, commonly referred to as Course Unit System. All courses should therefore be sub-divided into more or less self-sufficient and logically consistent packages that are taught within a semester and examined at the end of that particular semester. Credit units should be attached to each course.

iii) **Definition of Credit or Unit**

Credit units are weights attached to a course. One credit unit is equivalent to one hour per week per semester of 15 weeks of lectures or tutorials.

**Programme Requirements**

a) **Registration Procedure**

Students shall normally complete registration of courses for the semester not later than two weeks after the start of the semester. A student may not withdraw from a course after five weeks of lectures in a given semester without permission from the Dean of Postgraduate School.

A student who withdraws after five weeks or who fails to seek for permission from the Dean of postgraduate schools shall be deemed to have failed the course.

A student who fails to sit for more than 2 courses at the end of a given semester should be deemed to have withdrawn voluntarily from the programme.

**Academic Standing**

i) **Good Standing**

To be in good standing, a student must in each semester have a Cumulative Grade Point Average (CGPA) of not less than 4.00 (where applicable).

ii) **Withdrawal**

A student whose Cumulative Grade Point Average is below 4.00 at the end of two consecutive semesters shall withdraw from the programme (where applicable).

### 6.3 Attendance

Ph.D. students should interact with their supervisors all the time and the supervisors must be satisfied with the level of interaction before the student is recommended for defence.

### 6.4 Course Evaluation (Where Applicable)

i) In the doctoral programmes, assessment of students' achievements should be based on:

- i) Course Examination
- ii) Term papers/Seminars;
- iii) Other assignments;

### 6.5 Examinations, Grading Procedure & Results:

#### (i) Examinations

a) In addition to continuous assessment, final examination shall be given for every course at the end of every semester.

b) The total scores obtainable for every course shall be 100% as follows:

Continuous Assessment	30%
Final Examination	70%
Total	100%

Each course shall normally be completed and examined at the end of the semester in which it is offered.

#### ii) Pass Mark

The minimum pass mark in any course and thesis shall be 60%.

#### iii) Grading System

Grading of courses shall be done by a combination of percentage marks and letter grades translated into a graduated system of Grade Point Equivalents (GPE). To determine a student's standing at the end of every semester, the Grade Point Average (GPA) system shall be used. The GPA is computed by dividing the total number of credit points (TCP) by the total number of units (TNU) for all the courses taken in the semester. The credit point for a course is

computed by multiplying the number of units for the course by the Grade Point Equivalent of the marks scored in the course.

Each course shall be graded out of a maximum of 100 marks and assigned appropriate Grade Point Equivalent as in the following table:

<b>Credit Units</b>	<b>Scores</b>	<b>Letter Grades</b>	<b>Grade Points (GP)</b>
Vary according to contact hours assigned to each course per week per semester, and according to load carried by students.	70 – 100	A	5
	60 - 69	B	4
	50 - 59	C	3
	0-49	F	0

(ii) **Presentation of Results**

Results from the Postgraduate School Board shall be presented to Senate for approval.

(v) **Release of Results**

Results shall be released/published not later than 2 weeks after approval by the Senate.

## **32.0 DEPARTMENT OF BIOLOGICAL SCIENCES AND BIOTECHNOLOGY**

### **History of the Department**

The Department of Biological Sciences and Biotechnology was established in 2008 as one of the four pioneer Departments that make up the College of Pure and Applied Sciences of CALEB UNIVERSITY, Lagos, Nigeria. The Department had initial approval to run three Bachelor Degree programmes viz: Microbiology and Industrial Biotechnology, Plants Science and Biotechnology and Zoology and Aquaculture. However, one of the three programmes is currently subscribed to by students and this is Microbiology and Industrial Biotechnology.

The Department of Biological Sciences and Biotechnology started with an initial student enrolment of nine (9) in the Microbiology and Industrial Biotechnology programme only. From this humble beginning, there has been an increase in enrolment year-in-year-out. **In 2021/2022, the department started its Post Graduate Diploma in Microbiology and hopes to improve on it.**

### **Vision of the Programme**

To be a leading and dynamic Department of Biological Sciences and Biotechnology providing distinctly relevant basic and applied biological science education which empowers its graduates to contribute efficiently and effectively to the advancement of the frontiers of knowledge of science and its applications in solving environmental, medical, food and genomics problems.

### **Mission of the Programme**

To facilitate the production of graduates who can effectively solve modern microbial problems and undertake the latest research geared at making a significant contribution in their speciality.

### **Philosophy of the Programme**

The programme has been designed to provide a sound understanding of the concepts of microorganisms in relation to mankind and the environment. The programme will elaborate on the importance of microorganisms in the industry, health and environmental sectors of society. The Microbiology programme will also emphasize traditional biotechnology and the linkage to the current modern biotechnology.

### **Objectives of the Programme**

- ❖ To produce graduates with sound knowledge in Microbiology
- ❖ To advance critical, independent and original thinking in science
- ❖ To encourage cutting edge research
- ❖ To produce graduates with sound judgement, entrepreneurial skills and admirable character
- ❖ To produce conditions where services are rendered to the community and industries in a friendly atmosphere and sustainable manner.

### **ADMISSION REQUIREMENTS**

To qualify for admission into the Postgraduate Diploma degree programme in General Microbiology, a candidate must have the following:

- i. Five credit passes including English, Mathematics and three other relevant science subjects at O' Level as required by the Department.
- ii. B.Sc. Degree with at least a 3rd Class honour in Microbiology and related science courses such as B.Sc. (Hons) in Biology, Botany, Zoology, Biochemistry, Food Science and Technology, etc. from Caleb University or other recognized university
- iii. Higher National Diploma (HND) Upper Credit and above from a recognized polytechnic
- iv. Associateship of the Institute of Medical Laboratory Technology (AIMLT) Certificate

### **Registration and Matriculation Procedure**

1. To complete the registration procedure, students must pay specified fees and other charges. Receipts obtained for the fees must be presented at the time of registration. Designated University officials, in the Department, would sign appropriate sections of the forms upon the presentation of relevant receipts. Registration shall not be accepted as valid unless appropriate forms are duly signed by designated staff in the Department. Such forms must be returned to the College Officer before the closing date set for registration.
2. Registration must be completed within the period stipulated by the University authority which is usually two to three weeks into each semester. After the normal registration, there shall be a period of late registration. Candidates registering during this period shall

pay appropriate penalties. Students who fail to register for two consecutive semesters would be deemed to have lost their studentship, through voluntary withdrawal.

3. Fresh students are formally admitted into the university at matriculation. In the ceremony, students are made to read copies of the Matriculation Oath and append their signatures appropriately. Each student is given a Matriculation number which must be quoted in all transactions in the University. Academic transcripts and other records are also kept by the matriculation numbers. Thus, matriculation is compulsory and studentships are only valid when candidates go through the ceremony for the programmes to which they are admitted, at the beginning of each session.

## **SELECTION OF COURSES**

Each option in the programme has specified courses that students may register for at the beginning of each Semester. The details of these are provided in Section 2 of this Handbook. Students are advised to consult the Head of Department and/or Departmental Post Graduate coordinator in the choice of the various Courses to register.

## **PROBATION AND WITHDRAWAL**

**At the end of two consecutive semesters, any student who has a Cumulative Grade Point Average (CGPA) of less than 1.50, shall be placed on probation. If at the end of the probation period, such student fails to obtain a CGPA of at least 1.50, he or she shall withdraw from the Department.**

## **HARMONIZE WHEREVER IT OCCURS**

## **DURATION OF DEGREE PROGRAMME**

- i. A candidate shall normally spend a minimum of 2 semesters.
- ii. A candidate shall normally not be expected to spend more than 4 semesters.

## **MODERATION AND EXAMINERS**

All question papers shall be moderated internally. External examiners shall finally participate in the supervision of students. They shall participate in the determination of overall results and classification of degrees.

## **DEPARTMENTAL BOARD OF EXAMINERS**

The Head of Department shall be the chief examiner for the department. There shall also be appointed an examination officer who will be responsible to the Head of Department. He/she will be in charge of the conduct of examinations and the recording and return of results. The Board of Examiners of the department consists of the Academic Staff in the department.

## **COLLEGE EXAMINATIONS' COMMITTEE AND COLLEGE BOARD OF EXAMINERS**

There shall be a College Committee of Examination Officers. The College Examination Officer shall be appointed by the Dean. The function of the College Examination Committee is to plan for the examinations and to prepare results for the College Board of Examiners. The College Board of Studies/Examiners shall meet at the end of each semester to consider the result of the examinations held in that session.

## **TEACHING COLLEGE AND RESEARCH FACILITIES**

The Department has competent teaching faculty equipped to teach, guide and supervise courses and projects in Microbiology. Opportunity is also taken to utilize the services of competent people in the neighbour Universities, industry and government in and around Lagos State as guest faculty.

## **STUDENTS ORGANIZATION AND PUBLICATIONS**

Apart from being eligible to become members of the Caleb University Students Union, students of the Department are expected to belong to the Caleb University Pure and Applied Sciences Students' Association (CUPASS).

## **REGULATIONS GOVERNING AWARD OF PGD MICROBIOLOGY DEGREE**

The Department of Biological Sciences and Biotechnology offers a two-semester programme with specializations in PGD Microbiology.

- i. Instruction shall be through duly registered Courses in the Department as approved by the Senate based on recommendations of the College Board as may be determined from time to time.

- ii. Courses shall be evaluated in terms of Course units. One unit Course is defined as one lecture contact hour per week or three one hour tutorials or practical classes per week.
- iii. Courses offered in the College fall into two main categories: Compulsory (C) and Elective (E). The Compulsory Courses are those that a student must take and pass. On the other hand, Elective Courses are those that students are free to choose from to meet the number of additional units required for graduation. These Courses may be based within or outside the College.
- iv. Every Course shall be examined during the semester in which it was offered and candidates shall receive appropriate credits for the Course depending on their performances.
- v. No student shall sit for an examination in a Course not duly registered for and in which the student does not attain at least 80% attendance at lectures. A student may withdraw from a Course without penalty with the permission of the Head of Department on Completion of 'Add/Delete Forms'.
- vi. Continuous Assessments are part of the examination and shall account for, at least, 40% of the total marks available in each course.
- vii. The approved period of study for the award of a degree shall not be less than 2 and not more than 4.
- viii. Students are not expected to register for less than 28.
- ix. The Cumulative Grade Point Average (CGPA) system shall be used for the determination of academic status as well as the class of degree of every student. The CGPA is determined by the sum of the weighted grade point divided by the total units of Courses registered for whether they were passed or failed. The minimum pass mark in each course is 45%. The credit points awarded are as follows:

## **GRADING SYSTEM**

The following grading system would be adopted:

Score Range	0 -49	50 – 59	60 - 69	70 - 100
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Grade Point	0	3	4	5
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- i. A student who obtains a cumulative Grade Point Average (CGPA) of 4.50 or higher will graduate with a Distinction.
- ii. A student who obtains a CGPA of 3.50 or higher but less than 4.50 will graduate with a Credit.
- iii. A student who has obtained a CGPA of 3.00 or higher but less than 3.50 will graduate with a Pass.
- iv. A student who has obtained a CGPA below 3.00 will be allowed to repeat (Fail/Repeat).

## **DEGREE CLASSIFICATION**

To graduate, a candidate must have a CGPA of 1.5. The class of degree will be based on the overall CGPA. Classes of degrees are to be awarded depending on the CGPA obtained.

## **REGISTRATION OF COURSES**

Registration is a very important aspect of the academic activities of students on campus. Registration takes place at three levels, the university level, the College level, and the Department level. A student must complete registration at all three levels every semester to be considered a bonafide student of the University. It is the responsibility of a student to subject himself/herself to full registration and the summary of the registration procedure is given here to assist students to fulfil this important obligation.

- i. Registration starts at the Registry where fresh students confirm their admission and returning students confirm their standing, and collect necessary registration forms.
- ii. Original credentials of fresh students are checked at this stage to ensure that they have the required minimum admission qualification.
- iii. The registration continues at the Bursary where students convert their bank tellers to official receipts and get their registration forms endorsed to confirm good financial standing.
- iv. Students with good financial standing then report back to the Registry to conclude their registration in the Registry. Fresh students are given matriculation numbers at the stage.

- v. Next is medical registration at the University Health Centre. The University Students' Handbook contains information about registration at the Health Centre. Only students who have completed their registration at the Health Centre can have their space allocation in the Hall of Residence confirmed.
- vi. Part of the registration documents given to students who successfully conclude their registration at the Registry is a clearance for registration for courses to be taken by the students at the Colleges and Departments.
- vii. Fresh students registering for PGD Microbiology are required to have two copies of the following:
  - a. Birth certificate
  - b. Admission letter
  - c. UTME result
  - d. O-level results (GCE, NECO & WAEC)
  - e. BSc or HND certificate

One set of these documents is to be submitted to the department and the other at the College office for the student's file.

- viii. A fresh student should find out from the departmental secretary the name of his/her PG Coordinator and go to him/her for counselling before completing the course registration forms.
- ix. Similarly, a returning student should collect a copy of his/ her updated transcript from the departmental secretary and proceed to the PG Coordinator for counselling on his/her standing and the course to register for.
- x. A returning student who has no carryover shall normally register for the courses recommended for his/her current level following the approved curriculum for the programme to which he/she has been admitted.

- xii. After appropriate counsel, the student is expected to complete his/her course registration form online in the University Portal. The entries should be carefully checked before submission.
- xiii. If the registration has been correctly done, the student will receive a mail conveying approval for his/ her registration. Copies will be automatically sent to the College Dean, Academic Officer and the Head of the Department of Biological Sciences and Biotechnology. The course lecturer for each course to be taken by the student is also sent advice and the student's name will be automatically inserted in the Attendance List for lectures for the Course:
- xiii. The student is advised to print out a copy of his registration form at this point for his/her record.

### **32.1 PGD MICROBIOLOGY**

#### **COURSE SYNOPSIS/DESCRIPTION**

**NOTE: Two (2) contact hours of Practical per week is equal to one (1) contact hour of lecture and one (1) contact hour of Tutorial which is one credit unit.**

#### **First Semester**

<b>Course code</b>	<b>Course title</b>	<b>Course status</b>	<b>Total units</b>
MCB 701	Bacteriology	C	3 units
MCB 713	Microbial Genetics and Molecular Biology	C	3 units
MCB 719	Biostatistics	C	3 units
MCB 705	Seminar	C	2 units
MCB 707	Mycology	C	3 units
MCB 731	Immunology and Immunochemistry	E	2 units

MCB 723	Industrial Microbiology and Fermentation Technology	E	3 units
	<b>TOTAL</b>		22 units

### Second semester

Course code	Course title	Course status	Total units
MCB 702	Microbial Physiology and Biochemistry	C	3 units
MCB 704	Virology	C	2 units
MCB 728	Project	C	4 units
MCB 710	Medical Microbiology	E	2 units
MCB 714	Food Microbiology	E	3 units
MCB 734	Environmental Microbiology	E	3 units
	<b>TOTAL</b>		<b>17 units</b>

### Duration

- i. Full-time Postgraduate Diploma Programme shall run for a minimum of two semesters and a maximum of four semesters.
- ii. Part-time Postgraduate Programme shall run for a minimum of four semesters and a maximum of six semesters.

### COURSES AVAILABLE IN THE DEPARTMENT

Course Code	Course Title	Status	Units
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MCB 701	Bacteriology	C	3 units
MCB 713	Microbial Genetic and Molecular Biology	C	3 units
MCB 719	Biostatistics	C	3 units
MCB 705	Seminar	C	2 units
MCB 707	Mycology	C	3 units
MCB 731	Immunology and Immunochemistry	E	2 units
MCB 723	Industrial Microbiology and Fermentation Technology	E	3 units
MCB 702	Microbial Physiology and Biochemistry	C	3 units
MCB 704	Virology	C	2 units
MCB 728	Project	C	4 units
MCB 710	Medical Microbiology	E	2 units
MCB 714	Food Microbiology	E	3 units
MCB 734	Environmental Microbiology	E	3 units

## **COURSE DESCRIPTIONS**

### **MCB 701 Bacteriology (3 units)**

Classification-Systematic study of bacteria, their nature, characteristics, identification and isolation.

### **MCB 702 Microbial Physiology and Biochemistry (3 units)**

Microbial growth and dynamics, factors affecting microbial growth, nutrition in microorganisms, transport and absorption in microorganisms, metabolism of carbohydrate, lipids and proteins

### **MCB 713 Microbial Genetics and Molecular Biology (3 units)**

Microbes as materials for genetic studies, the structure of DNA and RNA, protein synthesis, gene mapping, mutation and its effect, DNA repair, Plasmids, transposable elements, Genetic recombination in prokaryotes and aspects of genetic engineering.

**MCB 704     Virology     (2 units)**

Virus structure and growth, viral replication, viral diversity, subviral entities, mutation in viruses, virological techniques, emerging viral diseases.

**MCB 707     Mycology (3 units)**

Classification, isolation and identification of different fungi; dynamics of fungal growth; characteristics of different groups of fungi including the higher fungi, yeasts-their life cycle and physiology; economic importance of fungi.

**MCB 719     Biostatistics   (3 units)**

Statistics and biology; scope and importance; sampling techniques and result analysis; descriptive and inferential statistics; measures of dispersion and central tendency; hypothesis testing; dependent and independent variables; Chi-square analysis, T-test; ANOVA, regression.

**MCB 728     Project     (4 units)**

Students will carry out independent research in Microbiology which will be assessed by the department with the presentation.

**MCB 705     Seminar     (2 units)**

Detailed literature search and review on a current topic in Microbiology or biotechnology followed by a presentation at a departmental Seminar.

**MCB 731     Immunology and Immunochemistry     (2 units)**

History and scope of immunology; specific and non-specific immunity; cell-mediated responses; humoral responses; origin and functions of lymphocytes; antigen and antibodies; structure and functions of immunoglobulins; sources of antibodies; antigen-antibody reaction; biology of T-cells; hyposensitivity.

### **MCB 734      Environmental Microbiology (3 units)**

Definition, Microbial community, ecosystem and the environment; Microbial interaction within a community; Pollution; waterborne pathogens; water treatment; sewage and sewage treatment; solid waste management process; liquid waste management; recalcitrant organics; biodegradation and bioremediation; biomagnifications; acid mine drainage.

### **MCB 714      Food Microbiology    (3 units)**

The distribution, role and significance of microorganisms in food; intrinsic and extrinsic parameters of foods that affect microbial growth, food spoilage and foodborne diseases. Microorganisms as food, indices of food sanitary growth and food microbiology standards. Disease of animal transmittable to man via food products; Principles of food preservation, classification and identification of microorganisms in food. Microbial quality control in food industries.

### **MCB 723      Industrial Microbiology and Fermentation Technology (3 units)**

Scopes of industrial microbiology, industrial fermentation, fermenter operations; monitoring of fermentation processes, product recovery in fermentation processes, production of different microbial metabolites including organic acids, vitamins, fermented milk products, antibiotics, steroids etc., quality control of fermentation products.

### **MCB 710      Medical Microbiology (2 units)**

The normal human flora; Principles of infection, Host-parasite relations; Etiology, epidemiology and pathogenic mechanisms; clinical symptoms, laboratory diagnosis and procedures, prophylactic and therapeutic procedures; control and prevention of selected bacterial, protozoan and fungal diseases; Methods of control of microorganisms, Disease control measures; chemotherapeutic agents- Production and synthesis, class, mechanism of action; Development of antimicrobial resistance.

### **Graduation Requirements for Postgraduate Diploma**

To be awarded a **Postgraduate Diploma Degree in Microbiology** in Caleb University, a candidate must:

- I. Register and pass a minimum of 28 credit units of courses including the compulsory and elective courses: 15 credit units in core courses, 9 credit units in elective courses and 4 compulsory credit units of research.
- II. The candidate must register for 4 units of a research project which will be examined orally by a board of examiners (including an external examiner). Such a candidate must present a seminar on the completed research before the oral examination.

## **32.2 M.Sc. MICROBIOLOGY**

### **Philosophy of the Programme**

Generally, the **philosophy** of Postgraduate programmes in Science is anchored on unbiased and systematic observations, accurate documentation and interpretation of facts and phenomena to generate a body of knowledge.

### **Aims/Objectives**

The **aims and objectives** of the M.Sc. Programme in Microbiology are to:

- a. Produce high-level manpower in Microbiology through the acquisition of requisite skills and knowledge, for national development
- b. Produce graduates who are capable of applying appropriate scientific principles for solving problems for the promotion and enhancement of human well-being
- c. Produce manpower with optimal competencies and skills to function effectively in the academic, public and private sector
- d. Produce graduates who will be adequately equipped for relevance in the global knowledge economy
- e. Develop in Microbiology graduates a sense of inquiry, capacity for independent research and motivation to extend the frontiers of the subject.

### **Admission Requirements**

The criteria for admission into the Master's Programme (M.Sc.) will be as follows:

1. All candidates must have five credit passes including English, Mathematics and two other relevant science subjects at 'O' Level.

2. Candidates with Bachelor's degrees from an approved university must obtain a minimum of second class lower division with a CGPA of 3.0/5.0 for an academic programme.
3. Candidates with at least a third-class degree or HND and university PGD with a CGPA of 3.0/5.0 may be considered for admission into academic Master's degree programmes.

### **Registration and Matriculation Procedure**

4. To complete the registration procedure, students must pay specified fees and other charges. Receipts obtained for the fees must be presented at the time of registration. Designated University officials, in the Department, would sign appropriate sections of the forms upon the presentation of relevant receipts. Registration shall not be accepted as valid unless appropriate forms are duly signed by designated staff in the Department. Such forms must be returned to the College Officer before the closing date set for registration.
5. Registration must be completed within the period stipulated by the University authority which is usually two to three weeks into each semester. After the normal registration, there shall be a period of late registration. Candidates registering during this period shall pay appropriate penalties. Students who fail to register for two consecutive semesters would be deemed to have lost their studentship, through voluntary withdrawal.
6. Fresh students are formally admitted into the university at matriculation. In the ceremony, students are made to read copies of the Matriculation Oath and append their signatures appropriately. Each student is given a Matriculation number which must be quoted in all transactions in the University. Academic transcripts and other records are also kept by the matriculation numbers. Thus, matriculation is compulsory and studentships are only valid when candidates go through the ceremony for the programmes to which they are admitted, at the beginning of each session.

### **Selection Of Courses**

Each option in the programme has specified Courses that students may register for at the beginning of each Semester. The details of these are provided in Section 2 of this Handbook.

Students are advised to consult the Head of Department and/or Departmental Post Graduate coordinator in the choice of the various Courses to register.

## Grading System

The following grading system would be adopted:

Score Range	0 -49	50 – 59	60 - 69	70 - 100
Grade Point	0	3	4	5

A student will be considered to be in “good standing” at the end of a particular semester if he has a CGPA that is not less than 1.5. A student, who fails to reach a Grade Point Average (GPA) of 1.50 at the end of the first semester, shall be given a warning with the inscription ‘WN’ against his/her name on the result sheet. The candidate shall be required to withdraw if the CGPA is less than 1.50 in the second consecutive semester.

C GPA and Academic Standing of Students		
S/N	CGPA Range	Academic Standing
1	$\geq 1.5$	Good Standing (GS)
2.	< 1.0 (first timer)	On probation (P)
3.	< 1.0 (in two consecutive semester)	Withdrawal from programme (WP)

## Degree Classification

To graduate, a candidate must have a CGPA of 3.0. The class of degree will be based on the overall CGPA. The degree will be awarded depending on the cumulative GPA obtained.

## Registration Of Courses

Registration is a very important aspect of the academic activities of students on campus. Registration takes place at three levels, the university level, the College level, and the Department level. A student must complete registration at all three levels every semester to be considered a bonafide student of the University. It is the responsibility of a student to subject himself/herself to full registration and the summary of the registration procedure is given here to assist students to fulfil this important obligation.

- i. Registration starts at the Registry where fresh students confirm their admission and returning students confirm their standing, and collect necessary registration forms.
- ii. Original credentials of fresh students are checked at this stage to ensure that they have the required minimum admission qualification.
- iii. The registration continues at the Bursary where students convert their bank tellers to official receipts and get their registration forms endorsed to confirm good financial standing.
- iv. Students with good financial standing then report back to the Registry to conclude their registration in the Registry. Fresh students are given matriculation numbers at the stage.
- v. Next is medical registration at the University Health Centre. The University Students' Handbook contains information about registration at the Health Centre. Only students who have completed their registration at the Health Centre can have their space allocation in the Hall of Residence confirmed.
- vi. Part of the registration documents given to students who successfully conclude their registration at the Registry is a clearance for registration for courses to be taken by the students at the Colleges and Departments.
- vii. Fresh students registering for PGD Microbiology are required to have two copies of the following:
  - a. Birth certificate
  - b. Admission letter
  - c. UTME result
  - d. O-level results (GCE, NECO & WAEC)
  - e. BSc or HND certificate

One set of these documents is to be submitted to the department and the other at the College office for the student's file.

- viii. A fresh student should find out from the departmental secretary the name of his/her PG Coordinator and go to him/her for counselling before completing the course registration forms.
- ix. Similarly, a returning student should collect a copy of his/ her updated transcript from the departmental secretary and proceed to the PG Coordinator for counselling on his/her standing and the course to register for.

- x. A returning student who has no carryover shall normally register for the courses recommended for his/her current level following the approved curriculum for the programme to which he/she has been admitted.
- xi. After appropriate counsel, the student is expected to complete his/her course registration form online in the University Portal. The entries should be carefully checked before submission.
- xii. If the registration has been correctly done, the student will receive a mail conveying approval for his/ her registration. Copies will be automatically sent to the College Dean, Academic Officer and the Head of the Department of Biological Sciences and Biotechnology. The course lecturer for each course to be taken by the student is also sent advice and the student's name will be automatically inserted in the Attendance List for lectures for the Course:
- xiii. The student is advised to print out a copy of his registration form at this point for his/her record.

### **Course Synopsis/Description**

***NOTE:*** Two (2) contact hours of Practical per week is equal to one (1) contact hour of lecture and one (1) contact hour of Tutorial which is one credit unit.

#### **Core Courses**

SCI 801	Management and Entrepreneurship (2 Credit Units)
SCI 802	ICT and Research Methodology (2 Credit Units)
MCB 801	Principles of Fermentation Technology (3 Credit Units)
MCB 802	Advanced Microbial Physiology and Metabolism (3 Credit Units)
MCB 803	Advanced Environmental Microbiology (3 Credit Units)
MCB 804	Advanced Microbial Genetics and Genomics (3 Credit Units)
MCB 821	Seminar (3 Credit Units)
MCB 822	Research Project (6 Credit Units)

#### **Elective Courses (25 Credit Units)**

MCB 805	Advanced Bacteriology (3 Credit Units)
MCB 806	Advanced Virology (3 Credit Units)

MCB 807	Advanced Mycology (3 Credit Units)
MCB 808	Advanced Microbial Ecology (3 Credit Units)
MCB 809	Advanced Public Health Microbiology (3 Credit Units)
MCB 810	Advanced Plant Pathogenic Microbiology (3 Credit Units)
MCB 811	Plant Virology (3 Credit Units)
MCB 812	Antimicrobial Agents and Chemotherapy (3 Credit Units)
MCB 813	Advanced Food Microbiology (3 Credit Units)
MCB 814	Advanced Soil Microbiology (3 Credit Units)

### **Duration**

1. A full-time Academic Masters Programme will run for a minimum of 3 semesters and a maximum of 5 semesters.
2. Part-time Academic Master's programmes will run for a minimum of 5 semesters and a maximum of 8 semesters.
3. For extension beyond the specified maximum period, special permission of the Senate shall be required.

## **COURSES AVAILABLE IN THE DEPARTMENT**

### **Areas of Specialization**

1. Microbial Biotechnology
2. Medical/Pathogenic Microbiology
3. Environmental Microbiology
4. Food and Industrial Microbiology

### **Core Courses**

1. SCI 801 Management and Entrepreneurship (2 Credit Units)
2. SCI 802 ICT and Research Methodology (2 Credit Units)
3. MCB 801 Principles of Fermentation Technology (3 Credit Units)
4. MCB 802 Advanced Microbial Physiology and Metabolism (3 Credit Units)
5. MCB 803 Advanced Environmental Microbiology (3 Credit Units)
6. MCB 804 Advanced Microbial Genetics and Genomics (3 Credit Units)
7. MCB 821 Seminar (3 Credit Units)
8. MCB 822 Research Project (6 Credit Units)

### **Elective Courses (25 Credit Units)**

1. MCB 805 Advanced Bacteriology (3 Credit Units)
2. MCB 806 Advanced Virology (3 Credit Units)
3. MCB 807 Advanced Mycology (3 Credit Units)
4. MCB 808 Advanced Microbial Ecology (3 Credit Units)
5. MCB 809 Advanced Public Health Microbiology (3 Credit Units)
6. MCB 810 Advanced Plant Pathogenic Microbiology (3 Credit Units)
7. MCB 811 Plant Virology (3 Credit Units)
8. MCB 812 Antimicrobial Agents and Chemotherapy (3 Credit Units)
9. MCB 813 Advanced Food Microbiology (3 Credit Units)
10. MCB 814 Advanced Soil Microbiology (3 Credit Units)

### **COURSE DESCRIPTIONS**

All the courses listed below may not be offered every year. Those available will depend on staffing.

#### **MCB 801 Principles of Fermentation Technology (3 Credit Units)**

Definition and scope of microbial fermentation. History of industrial fermentation processes. Batch and continuous fermentation systems. Solid-state fermentation. Products of fermentation: primary and secondary metabolites, microbial biomass and indigenous fermented foods.

#### **MCB 802 Advanced Microbial Physiology and Metabolism (3 Credit Units)**

Energy yielding metabolic processes and pathways in microorganisms. Biosynthetic pathways with special reference to nucleic acids, vitamins, proteins, polysaccharides and lipids. Regulation of biosynthetic processes.

#### **MCB 803 Advanced Environmental Microbiology (3 Credit Units)**

Dynamics of microbial populations in air, water and soil. Distribution and survival of aerial and aquatic microorganisms. Biogeochemical cycling of nutrients and chemical elements. Application of microbial systems in water purification, waste management and pollution control. Recent advances in biotransformation and bioremediation.

### **MCB 804 Advanced Microbial Genetics and Genomics (3 Credit Units)**

Principles of Gene expression, Recombinant DNA Technology, Applications of Genetic Engineering in Medicine, Industry and Agriculture. Hybridization. Polymerase Chain Reaction and Microarray Techniques. Mapping of prokaryotic genomes e. g. E. coli genomes libraries. SAGE DNA chip technology. Functional genomics computer analysis, proteomics.

### **Elective Courses**

### **MCB 805 Advanced Bacteriology (3 Credit Units)**

Current concepts in the classification of bacteria. Cultural and nutritional studies. Bacterial pathogenicity and emerging diseases. Antibiotic and Drug resistance. Anaerobic Bacteriology. Laboratory diagnosis, chemotherapy and clinical significance of nosocomial and anaerobic infections.

### **MCB 806 Advanced Virology (3 Credit Units)**

Biochemistry of viral replication. RND – directed DNA polymerases. Site-specific and general recombination in phage lambda. Assay of viruses. Viral nucleic acid replication. Inhibition of viral replication. Slow virus diseases. Viral interference and interferons. Tumour virology. Viral immunology and pathogenicity. Techniques in viral diagnosis. Human Immunodeficiency Virus (HIV) and AIDS. Management of viral diseases.

### **MCB 807 Advanced Mycology (3 Credit Units)**

Current trends in the classification of fungi. Fine structure of fungi. Mechanism of spore dispersal and germination. Water relations and rhythms of spore liberation. Economic mycology with special reference to food and industry. Mycotic infections and their control. Fungal toxicology

### **MCB 808 Advanced Microbial Ecology (3 Credit Units)**

Ecological relationships amongst microorganisms with special reference to mutualism, competition, synergism and parasitism. Biochemistry of intra and inter-specific interactions. Simulation of microbial environments in continuous culture. Microbiology of extreme environments. Ecology of the rhizosphere, phylloplane and coral reefs.

### **MCB 809 Advanced Public Health Microbiology (3 Credit Units)**

Detailed studies of microorganisms of public health significance in water, food, air and the soil. Mechanism of bacterial and parasitic infections. Epidemiology of communicable diseases and community protection methods.

#### **MCB 810 Advanced Plant Pathogenic Microbiology (3 Credit Units)**

Current trends in aetiology of plant diseases. Ecological and epidemiological aspects of fungal, viral and bacterial diseases of plants. Cytological and biochemical changes in plant diseases.

#### **MCB 811 Plant Virology (3 Credit Units)**

Purification, extraction and identification of plant viruses using serological and molecular techniques. Classification and nomenclature of plant viruses. Multicomponent viruses, defective viruses, viroids and other virus-like agents. Nature and mechanism of plant viral infections.

#### **MCB 812 Antimicrobial Agents and Chemotherapy (3 Credit Units)**

Chemistry of antimicrobial agents in clinical and industrial usage. Synthesis and production of antibiotics in microbial systems. Structure-activity relationships. Antimicrobial therapy of infectious diseases. Mechanism of drug resistance. Drug measurement in body fluids.

#### **MCB 813 Advanced Food Microbiology (3 Credit Units)**

Detailed chemistry of specific foods. Role of intrinsic and extrinsic factors in the microbial deterioration of foods. Microbial foodborne infections and food intoxications. Quality assurance in the food industry. Role of microbial enzymes in the food industry. Food production and processing. Indigenous fermented foods in Africa and Nigeria. Optimization of food processing methods. Use of prebiotics and probiotics in foods.

#### **MCB 814 Advanced Soil Microbiology (3 Credit Units)**

Microbiology and biochemistry of ergonomically important soil processes. Decomposition of organic matter such as hemicellulose, cellulose, lignin and fertilizers. Biochemistry of pesticide degradation.

### **GRADUATION REQUIREMENTS**

To be awarded a Master's degree candidate must pass a minimum of 30 credit units made up as follows:

- ❖ Core courses of 24 credit units, including the general courses, projects and seminars.
- ❖ Elective courses of 6 credit units.
- ❖ A student shall present at least one seminar, submit and defend a thesis proposal.
- ❖ A student for an Academic Master's degree programme shall research a relevant area of specialization and submit an acceptable thesis (six credit units compulsory) which must be defended before a panel of external and internal examiners.
- ❖ The minimum pass mark of 50% in any course/thesis must be met by the student before graduation.

### **32.3 M.Phil/Ph.D and Ph.D MICROBIOLOGY**

#### **Philosophy, Aims and Objectives**

The programme has been designed to provide a sound understanding of the concepts of microorganisms in relation to mankind and the environment. The programme will elaborate the importance of microorganisms in the industry, health and environmental sectors of the society. The Microbiology programme will also emphasize the traditional biotechnology and the linkage to the current modern biotechnology.

#### **Objectives**

- To produce graduates with sound knowledge in Microbiology
- To advance critical, independent and original thinking in science
- To encourage cutting edge research
- To produce graduates with sound judgement, entrepreneurial skills and admirable character

To produce conditions where services are rendered to the community and industries in a friendly atmosphere and sustainable manner.

#### **Admission requirements for m. Phil./Ph.D.**

To qualify for admission to the M. Phil./Ph.D. degree programmes in Microbiology, a candidate must have the following:

- i. Five credit passes including English, Mathematics and three other relevant science subjects at O' Level as required by the Department.
- ii. First degree holders whose CGPA is not below 3.50 in M.Sc. course in Microbiology of Caleb University and attain a satisfactory level of performance in the other compulsory courses of the Masters Programme in Microbiology.
- iii. Candidates who possess a Master's degree in Microbiology from other universities with minimum CGPA of 3.5.

#### **Requirements for M. Phil./Ph.D. Conversion**

1. Candidates shall have the opportunity to convert from M.Phil. to Ph.D. on account of merit due to satisfactory performance (minimum CGPA of 4.0 on a scale of 5.0).
2. A candidate must pass 9 units of the compulsory course work and 6 units of elective course work and all other existing requirements as stipulated in the regulations of the College of Postgraduate Studies.
3. A candidate needs not submit Research Project Report.

#### **Important Comment on M. Phil./Ph. D. Programme**

1. ALL M.Phil. candidates SHALL at inception present a (not gradable) research proposal (MCB 900) to be approved by the Department based on academic contents and anticipated contribution to knowledge which is subject to corrections, suggestions and modifications of lecturers at the presentation.
2. The M.Phil/PhD Programme in Microbiology is for a minimum of five academic sessions in duration.
3. Candidates for M.Phil/Ph.D shall register and pass same course works as described under the first and second year for M.Phil. programme and have a minimum Cumulative Grade Point Aggregate (CGPA) of 4.0 on the scale of 5.0.
4. Such candidate shall be given the opportunity to present a Research Seminar before the end of the second (2<sup>nd</sup>) year of the M.Phil. programme.
5. The Department shall assess the Research Seminar presentation to determine the competence of the candidate or otherwise regarding the conversion to proceed to Ph.D. programme.

6. Conversion process shall be in accordance with the departmental laid down rules and all other existing requirements as stipulated in the regulations of the School of Postgraduate Studies.
7. On conversion, ALL candidates shall meet all the conditions as applicable to regulations guiding the Ph.D. programme.

### **Admission requirements for doctor of philosophy (Ph.D.) Programmes**

Basic Admission Requirements for Doctoral Programmes Candidates for Ph.D. admission must satisfy the following conditions:

- i. Candidates must have five credit passes including English, Mathematics and two other relevant science subjects at O' Level.
- ii. Candidates with Bachelor's degree from an approved university must obtain a minimum of Second Class Lower division with a CGPA of at least 3.0/5.0.
- iii. Candidates must have Academic Master's degree in relevant areas with a CGPA of 4.0/5.0 and thesis score not lower than 60% (B).
- iv. Candidates must demonstrate adequate intellectual capacity, maturity and effective decision making and problem solving potentials.

### **Duration Of The Programme**

- i. A full time Doctoral programme shall run for a minimum of 6 semesters and a maximum of 8 semesters.
- ii. Part-time Doctoral programme shall run for a minimum of 8 semesters and a maximum of 10 semesters.
- iii. For extension beyond the specified maximum period a special permission of Senate shall be required.

### **Dress Code and Conduct**

Habits have a lot to do in shaping our personality and style. Students of the Department should be good mannered, well behaved, and decently dressed at all times. Corporate (formal) dressing is expected of students presenting seminars. Laboratory coats and preferably, flat covered shoes should be worn during practical sessions and while working in the laboratory. Punctuality at academic activities and good study habits are some factors that enhance academic performance.

Student must therefore, be punctual and regular at lectures and practical sessions. Hard work will pay off with good grades. Work hard and reap the benefits.

### **Course Synopsis/Description**

*NOTE: Two (2) contact hour of Practical per week is equal to one (1) contact hour of lecture and one (1) contact hour of Tutorial which is one credit unit.*

### **PRESENTATION OF MICROBIOLOGY M. Phil / PhD COURSES BY SEMESTER**

#### **YEAR ONE**

##### **FIRST SEMESTER**

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE UNIT</b>	<b>STATUS</b>
MCB 911	Research Seminar 1	3	C
MCB 913	Advanced Research Methodology	3	C
MCB 915	Advanced Biostatistics	3	E
MCB 917	Applied Research Techniques in Microbiology	3	C

#### **YEAR ONE**

##### **SECOND SEMESTER**

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE UNIT</b>	<b>STATUS</b>
MCB 912	Research Seminar II	3	C
MCB 914	Advanced Microbial Genetics and Genetic Engineering	3	C
MCB 916	Current Advances in Industrial Microbiology	3	E

MCB 918	Current Advances in Pathogenic Microbiology and Biotechnology	3	E
MCB 920	Advanced Environmental Microbiology and Biotechnology	3	E
MCB 922	Advanced Diagnostic Microbiology and Biotechnology	3	E
MCB 924	Current Advances in Food Microbiology	3	E
MCB 926	Advanced Petroleum Microbiology	3	E

## YEAR TWO

### FIRST SEMESTER

COURSE CODE	COURSE TITLE	COURSE UNIT	STATUS
MCB 919	Bioinformatics	3	C
MCB 921	Advanced Fermentation Microbiology	3	E
MCB 923	Vaccine Technology and Production	3	E
MCB 925	Advanced Bio deterioration and Environmental Bioremediation	3	E
MCB 927	Advanced Epidemiology	3	E

## YEAR TWO

### SECOND SEMESTER

COURSE CODE	COURSE TILTLE	COURSE UNIT	STATUS
MIC 928	Research Project	6	C

## **General Courses**

All postgraduate students (irrespective of the programme) must take Management and Entrepreneurship as well as ICT & Research Method as compulsory courses. However, any student who has taken them at a particular postgraduate level is exempted at higher levels.

### **SCI-801 Management and Entrepreneurship (2 Credit Units)**

The course will cover business environment, general management, financial management, entrepreneurship development, feasibility studies, marketing and managerial problem solving.

### **SCI 802 ICT and Research Methodology (2 Credit Units)**

This course should cover essentials of Spreadsheets, Internet technology, Statistical Packages, Precision and Accuracy of Estimates, Principles of Scientific Research, Concepts of Hypotheses Formulation and Testing, Organization of Research and Report Writing.

### **SCI 803 Emerging Technologies (2 Credit Units)**

Nano technology, stretchable silicon, pervasive wireless, nuclear reprogramming, nanotechnology, biomechanics, epigenetics and cognitive radio.

### **SCI 804 Science, Environment and Innovation (2 Credit Units)**

Elements of global warming, environmental protection issues, biodiversity, pollution, species at risk, social and ethical implications of science, enterprise and productivity, intellectual property rights, private public partnership and investment.

## **COURSES AVAILABLE IN THE DEPARTMENT**

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE UNIT</b>	<b>STATUS</b>
MCB 911	Research Seminar 1	3	C
MCB 912	Research Seminar II	3	C
MCB 913	Advanced Research Methodology	3	C
MCB 914	Advanced Microbial Genetics and Genetic Engineering	3	C
MCB 915	Advanced Biostatistics	3	E

MCB 916	Current Advances in Industrial Microbiology	3	E
MCB 917	Applied Research Techniques in Microbiology	3	C
MCB 918	Current Advances in Pathogenic Microbiology and Biotechnology	3	E
MCB 919	Advanced Bioinformatics	<b>3</b>	<b>C</b>
MCB 920	Advanced Environmental Microbiology and Biotechnology	3	E
MCB 921	Advanced Fermentation Microbiology	<b>3</b>	<b>E</b>
MCB 922	Advanced Diagnostic Microbiology and Biotechnology	3	E
MCB 923	Vaccine Technology and Production	<b>3</b>	<b>E</b>
MCB 924	Current Advances in Food Microbiology	3	E
MCB 925	Advanced Biodeterioration and Environmental Bioremediation	<b>3</b>	<b>E</b>
MCB 926	Advanced Petroleum Microbiology	3	E
MCB 927	Advanced Epidemiology	<b>3</b>	<b>E</b>
MIC 928	Research Project	6	C

## **COURSE DESCRIPTIONS**

All the courses listed below may not be offered every year. Those available will depend on staffing.

### **MCB 911: Research Seminar I (Compulsory, 3 units)**

This is a form of term paper. The topic is to be selected in the area of specialization but NOT directly on the specific area of research study. The write-up shall deal in details the past and present studies on the chosen topic based on extensive literature search review. The research seminar report shall be typed and spiral-bound according to the departmental format and standard. The report shall be graded by two (2) internal assessors in the department exclusive of the candidate's supervisor.

**MCB 912: Research Seminar II (Compulsory, 3 units)**

Candidate shall write, bind and present the literature of a departmentally approved research proposal. The seminar shall comprise of three (3) distinct subtitles but all coherently inter-related with each section having its own introduction, objectives, review of literature and conclusions: Two (2) experts (1 Internal and 1 External) shall be invited to grade the write-up and the presentation with a PG-School representative present at the presentation as an observer.

**MCB 913: Advanced Research Methodology (Compulsory 3units)**

Project and experimental designs; Bio-ethics; Data generation; Illustrations and analysis; Results interpretation; Library and Research; Scientific presentation (oral and poster); How to write scientific papers for seminars, workshops, conferences and publication in journals.

**MCB 914: Advanced Microbial Genetics and Genetic Engineering (Compulsory 3 units)**

Recombination; Mutations and Gene transfer; RNA, DNA and plasmids and their applications in biotechnology and molecular systematics. Technique of molecular genetics/genetic engineering and their industrial applications. Concepts, ethnics and applications of genetic engineering with emphasis on microbial strain development and improvement. Applications of genetic engineering in petrochemical, pharmaceutical, medical and multi-purpose industries. Gene cloning in different organisms and use of plasmids for enhanced industrial processes. DNA cloning vectors and re-arrangement of genetic material. Control of gene expression. Protoplast fusion. Methodology, types and applications cell cultures.

**MCB 915 Advanced Biostatistics (3 Credit Units)**

Advanced Regression, Bio-assays, Probit and Logit models, Growth Curves; Logistic Regression, Potency/efficacy determination. Theory of clinical trials, Ethical Issues in Medical Data Collection.

**MCB 916: Current Advances in Industrial Microbiology (3 Credit Units)**

Pathways of biosynthesis and catabolites. Hypothesis for the occurrence of secondary metabolites. Advanced metabolic pathway of energy generation. Polysaccharases of industrial importance. Bioinformatics of relevance in Industrial Microbiology (PCR, DNA sequencing, microarrays and metagenomics). Recent techniques in search for microbial active compounds. Patent and intellectual properties laws. Microbial teaching.

### **MCB 917 Advanced Research Techniques in Microbiology and Biotechnology (3 Credit Units)**

Media design and culture collections. Safety techniques and laboratory precautions. Separation procedures for biological components. Disintegration of microbial cells and application in biotechnology. Methods of recovery of fermentation products including antibiotics and other biologically active components. Microbial enzyme extraction, purification and assays. Estimation of microbial populations and interpretation of data. Methods in anaerobic bacteriology. Microscopy and Photomicrography. Current trends in microbial identification including phage typing and DNA finger printing.

### **MCB 918: Current Advances in Pathogenic Microbiology and Biotechnology (3 Credit Units)**

Safety consideration in pathogenic microbiology laboratory. Changing trends in host parasites relationship. Understanding host-parasite interactions in the gastrointestinal tract infections. Relationship between *Helicobacter pylori* and allergies. Evolving challenges in infection control. Impact of new diagnostic methods in control of infectious diseases. New and emerging infections –General considerations/bacterial infections. The multiplicity of virulence factors in *Escherichia coli* infections associated with the gastroenteritis. New and emerging viral infections. Multi factorial approach to control of the malarial plague. New and emerging fungal and parasitic infections. The genetic basis of multi drug resistant (MDR) bacteria. Problems and prospect of vaccine development. Updates on modern approaches to the development of therapeutic agents and vaccines for the prevention of microbial diseases.

### **MCB 919: Bioinformatics (3 Credit Units)**

Scripting. Use of computer programmes. Programme installation and navigation. Data mining. Statistical analysis. Primer design. Sequence analysis. BLAST. Phylogenetic analysis. Protein alignment.

### **MCB 920: Advanced Environmental Microbiology and Biotechnology (3 Credit Units)**

Environmental pollution and industrial development. Pollution phenomena. Roles of microorganisms in the pollution and depollution of environmental media. Nitrogen and sulphur cycles. Biodegradation and co-metabolism of pollutants/xenobiotic compounds. Microorganisms as bio-monitors of environmental pollution. Microbial indicators of water quality. Pathogenic contamination of water, soil and air. Use of microbial mats in agro-forestry.

Solid waste treatment and disposal. The roles of microorganisms in sewage and waste management. Microbiological principles in modern aqua-culture. Properties of marine bacteria (bioluminescence).

### **MCB 921: Advanced Fermentation Microbiology (3 Credit Units)**

Ecology and physiology, genetics of industrial microorganisms. Methods for transformation of organic compounds. Microbial enzymes. Cell enzymes immobilization. Application of immobilized cells. Transport phenomena in biotechnological systems (mass transfer, aeration and agitation; mixing and rheology). Kinetics of biochemical reactions. General consideration of solid state fermentations. Scale up of fermentation processes and computer control downstream processing. Storage of fermented materials (drying, evaporation and dehydration, freezing and irradiation). Tropical and oriental fermented foods and beverages. Case studies of microbiological and biochemical industries (Antibiotics, amino acids, methane production from waste, alcohol, polysaccharides, pesticides). Microbial proteins (SCP process, nutritional aspects toxicity testing; utilization of hydrocarbons).

### **MCB 922: Advanced Diagnostic Microbiology and Biotechnology (3 Credit Units)**

General considerations in Diagnostic Microbiology and biotechnology. Various diagnostic tools. Discussions on the sensitivity, specificity, rapidity and simplicity of diagnostics methods. Considerations in the selection of diagnostic techniques in the diagnosis of common infectious diseases. Interpretation of results of diagnostic experiments. Application of diagnostic tools in the diagnosis of infectious and non-infectious diseases. Preparation of simple diagnostic kits, principles and practice. Quality control in laboratory diagnosis and diagnostic products.

### **MCB 923: Vaccine Technology and Production**

Definitions and Historical aspects of vaccines. Microbial infections and range of available vaccines in the control of infectious diseases. Types, efficiency and Potency of vaccines. Theoretical considerations in the development of vaccines. The immune systems and response to infectious diseases. Host parasite factors in the development of effective and ineffective responses to infective entities. Practical considerations in the production of vaccines, including personnel, equipment, general infrastructure, safety and quality control. Vaccine efficacy monitoring, including survival of vaccines strains in vaccinated populations and the development and maintenance of protective immunity. Field trips to vaccine production industries.

### **MCB 924: Current Advances in Food Microbiology (3 Credit Units)**

Quantitative aspects of bacteriology and their application to food processing. Mathematical consideration of thermal destruction. Microbial contamination of raw food materials of plant and non-plant origins (vegetables, fruits, and fruit juices, protein foods, dried foods, sea foods). Microflora of public health significance. Food poisoning mechanisms of survival of organism in foods. Microorganisms in preserved foods. Microbial contamination during and after processing. Indices of sanitary quality of food specification and standards. Microbial toxemia. Mycotoxins, fruits and fruit products. Residual analysis. Advanced methods of detection and estimation of bacteria and toxins in foods. Techniques of biology assay and immunological methods of detecting Microbial toxins in foods.

### **MCB 925: Advanced Biodeterioration and Environmental Bioremediation (3 Credit Units)**

Range of deteriogens. Recognition and costing of bio-deterioration problems. Bio deterioration of natural, refined and processed materials (cellulosic, wood, stored products and good, natural products of animal origin, fuels and lubricants, plastics and rubber, glass, paints, pharmaceuticals and cosmetics, metals adhesives and sealants). Control of bio-deterioration and test techniques. Bioremediation - Laboratory treatability studies, Microbiological protocols and analytical methodologies. Microbiological site characterization. Bioengineering of soils and groundwater. Remediation design. Monitoring requirements. Bioremediation of surface and subsurface soils. Bioremediation of heavy metals. Use of microbial mat in bioremediation. Bioremediation in fresh and marine systems. Aerobic and anoxic /anaerobic bioremediation. Application of anoxic/anaerobic processes to environmental problems. Anaerobic digestion of municipal solid wastes and biogas generation. Composting. Bioremediation case studies. Regulatory consideration in environmental bioremediation.

### **MCB 926: Advanced Petroleum Microbiology (3 Credit Units)**

Petroleum and its origin. Microbial production of methane. Microbial metabolism of gaseous hydrocarbons. Microbial metabolism of gaseous hydrocarbons. Microbial metabolism of straight-chain, branched and cyclic alkanes. Microbial transformation of aromatic hydrocarbons; Pathways for hydrocarbon degradation. Biosynthesis of surface-active agents and their role in bioemulsification of hydrophobic molecules. Genetics of hydrocarbon utilizing microorganisms. Genetic engineering of hydrocarbons biodegradation. Fates of petroleum pollutants in marine, freshwater and soil ecosystem. Effects of hydrocarbons in microorganism

and their communities. Growth dynamics of microorganisms on hydrocarbons substrates. Microbiology of heavy crude's and oil shales. Microbially enhanced oil recovery (MEOR). Biotreatment and disposal of petroleum refinery wastes. Sulphate reducing bacteria (SRB) in the petroleum industry. Hydrocarbons as substrates in industrial fermentations. Bioprocessing of coal.

### **MCB 927: Advanced Epidemiology**

Epidemiology Terminology; Sporadic, Endemic Epidemic, Pandemic, Morbidity, Mortality and Prevalence rate. Features of Epidemics; Common-source epidemic, Propagated epidemic, Herd immunity, Attenuated virulence and Epidemic cycles. Propagation of Diseases; Reservoirs, inanimate and animate reservoirs, and carriers. Transmission Routes and Infectious Doses; Air borne, Water borne, Urogenital transmissions, Arthropod borne, Direct Contact, Nosocomial or Iatrogenic Diseases and Zoonoses. Controlling Epidemics; Reducing or eliminating reservoirs, breaking transmission routes, Reducing number of susceptible individuals, Quarantine. Origin of new diseases. Epidemiological investigations and Surveillance.

### **MCB 928: Research Project (6 units)**

Students are required to undertake a research project in relevant fields of Microbiology and Biotechnology as approved by the project supervisor in order to fulfil the requirements for the award of the degree.

### **GRADING SYSTEM**

The following grading system would be adopted:

Score Range	0 - 49	50 - 59	60 - 69	70 - 100
Grade Point	0	3	4	5
Letter Grade	F	C	B	A

### **GRADUATION REQUIREMENTS**

- i. The Doctorate (Ph.D.) programme is primarily by Research. However, Departmental Postgraduate Committee may prescribe some courses of not more than 12 credit units to be taken by the candidates. A Doctoral (Ph.D.) Thesis of 12 credit units **MUST** be defended before a Panel of Internal and External Examiners.

- ii. A student shall present at least two seminars, submit and defend a thesis proposal.
- iii. Ph.D. students should interact with their supervisors all the time and the supervisors must be satisfied with the level of interaction before the student is recommended for defence.
- iv. A student shall carry out research in a relevant area of specialization and submit an acceptable thesis.
- v. Candidate must satisfy all other conditions stipulated by the Caleb University regulation governing post graduate studies.

### **Areas of Specialization**

The Department of Biological Sciences and Biotechnology offers programmes leading to the award of MPhil/Ph.D. and Ph.D. in:

1. Microbial Genetics and Biotechnology
2. Medical/Pathogenic Microbiology
3. Environmental Microbiology
4. Food and Industrial Microbiology

## **33.0 DEPARTMENT OF COMPUTER SCIENCE**

### **Philosophy**

The programme is designed to give students the opportunity to obtain a broad knowledge in both theory and practice of Computer Science. Students will be trained to design frameworks and write programs for solving different real-life problems. Such training will lead to the production of skilled manpower that is adequately furnished with the current and comprehensive knowledge to do researches in Computer Science as well as Information and Communication Technology which will impact greatly on the socio-economic growth and development of our nation.

### **Objectives**

The objectives of the post graduate degree in Computer Science are to:

- (i) Build on the foundation the students have in Computer Science by enhancing their knowledge as required for postgraduate studies.

- (ii) Carry out research work in any field of Computer Science.
- (iii) Develop software that are needed in various sectors of the economy.
- (iv) Provide timeless research and consultancy services to industries, banks and other critical sectors of the economy.
- (v) Proffer computer-based software, tools and devices which would address the challenges posed on information technology driven global economy/society.

### **Departmental Postgraduate Committee Membership**

- (i) The membership shall consist of all academic staff with responsibilities in the departmental postgraduate programme.
- (ii) There shall be a co-ordinator appointed by the Head of Department.
- (iii) The Head of Department shall be the Chairman.

### **Functions**

- (i) To co-ordinate Postgraduate programmes in the Department
- (ii) To collaborate with operators of other degree programmes
- (iii) To present candidates for admission, award of grants, scholarships and fellowship and award of higher degrees and graduate diplomas to the College Postgraduate Committee.
- (iv) To recommend External Examiners to the College Postgraduate Committee based on the advice of the Supervisory Committee.

### **PROGRAMMES OFFERED**

1. Postgraduate Diploma (PGD)
2. Master of Science. (M.Sc.)
3. Master of Philosophy (M.Phil.)
4. Doctor of Philosophy (Ph.D.)

### **AREAS OF SPECIALIZATION**

1. Artificial Intelligence
2. Bio-computation
3. Computer Architecture

4. Computer Programming
5. Computer Science Theory.
6. Cybersecurity and Computer Forensics
7. Data Communications and Networks
8. Data Engineering
9. Data Science
10. Database Systems and Information Retrieval
11. E- Systems
12. Foundation of Computer Science
13. Human Computer Interactions
14. Information Management and Analytics
15. Information Systems
16. Information Technology
17. Machine Learning and Robotics
18. Mobile and Internet Computing
19. Real World Computing
20. Software Engineering
21. Theoretical Computing Science

### **33.1 COMPUTER SCIENCE POSTGRADUATE DIPLOMA (PGD) CURRICULUM**

#### **Introduction**

The **Postgraduate Diploma** (PGD) (Computer Science) Programme is designed to meet the requirements for the training and development of the people that are coming from Science, Engineering and Social Sciences related background into Computer Science. It serves as a

bridge programme to accommodate further learning and training in Computer Science and Engineering.

### **Philosophy / Objectives**

This programme is based on the philosophy that the rate of technological development of a nation depends to a great extent on the size, quality, motivation and orientation of its science and engineering workforce. It is clear that the computer is going to play a major role in technological advancement of any nation in the next millennium and will depend largely on the quality and quantity of computer professionals in this information age.

### **The objectives of the Postgraduate Diploma in the Department are:**

1. To provide students with bachelor's degree and holder of HND in relevant fields with deeper and specialized knowledge in Computer Science.
2. Those who wish to make up for their deficiencies in their mother background in order to satisfy the requirements for the practice of Computer Science and Information Technology such as HND courses to become more theoretical, research-oriented studies in the University.
3. Those who wish to convert from Engineering, Science, and Social Science related fields to Computer Science field.

### **Postgraduate Diploma**

#### **1 Method of Application**

- (a) Application for admission to a programme of study leading to a postgraduate diploma or certificate must be made on the prescribed form to the Admissions Officer, School of Postgraduate Studies of Caleb University.
- (b) No person shall be admitted to a programme unless his/her application has been approved by the Board of Postgraduate Studies (hereafter referred to as the Board).

#### **2 Eligibility**

- (a) An applicant for admission into a programme shall be: (i) A graduate of this University or other recognized Universities.
- (ii) A person who holds other qualifications approved by Senate.

(iii) In exceptional circumstances, any other person whose educational qualifications and competence have been approved by Senate. (b) Notwithstanding Regulation 2(a) above, an applicant may be required as a condition of admission to undergo such tests as may be prescribed by the University, Department or Departments concerned with his proposed programme, or to take such other pre-requisite or concurrent studies and examinations as may be prescribed, subject to the overall control of the Board.

### **Admission Requirements**

The criteria for admission into the **PGD** programme will be as follows:

(i) All candidates must have five credit passes including English, Mathematics and three other subjects at 'O' Level.

(ii) Candidates with Bachelor's degree from an approved university must obtain a minimum of third class degree in **Science, Social Science, Engineering and other fields including** Biology, Chemistry, Civil Engineering, Computer Engineering, Computer Science, Computer Science Economics, Computer Science Education, Electrical Engineering, Electrical/Electronics Engineering, Geography, Geology, Human Physiology, Information Technology, Mathematics, Mechanical Engineering, Metallurgical and Materials Engineering, Microbiology, Mining Engineering, Petroleum and Gas Engineering, Petroleum Engineering, Physics and Electronics, Physics, Polymer and Textile Engineering, Science Laboratory Technology, Statistics, Technical Education, and Zoology.

(iii) Holders of **HND of the same field or** relevant discipline as in (ii) **or equivalent professional certificate** with three years working experience for upper credit and above or five years working experience for lower credit.

(iv) Also, candidates who have acquired the status of Full Membership of Computer Professional Registration Council of Nigeria (MCPN).

(v) Candidates may be required to satisfy the Department in a selection process.

### **3 Project Supervision**

Where a programme involves the submission of a project report, each student shall work under the direction of supervisors approved by the relevant department.

### **4 Programmes of Studies and Schemes of Examinations**

(a) The programme of studies and scheme of examinations of Postgraduate Diploma shall be approved by Senate on the recommendation of the Board.

(b) Candidates may be required to prepare project reports as part of the programme of study for Postgraduate Diploma. Such project reports shall be in accordance with appropriate format specified by the relevant department and approved by the Board.

(c) The examiners may at their **discretion**, examine the project report of any candidate orally or by a practical examination or by a combination of both.

### **5 Board of Departmental Examiners**

For Postgraduate Diploma, there shall be a Board of Examiners consisting of the Departmental PG Coordinator who shall be the Chairman, the examiner or examiners for each of the written papers and the external examiners. In addition, a member of the Board of PGS who is not a member of the Department must be present at the meeting of Examiners.

### **6. Minimum Requirements for the Award of Diploma**

To qualify for the award of the Postgraduate Diploma (PDG) in Computer Science a candidate must:

(a) Take and pass a minimum of 24 units and a maximum of 30 units of courses that must include CSC707 and CSC712.

(b) Student who obtains cumulative grade point average (CGPA) of 4.50 or higher and satisfies requirement 6(a) above will graduate with Distinction.

(c) Student who obtains CGPA of 2.40 or higher but less than 4.50 and satisfied requirement 6(a) above will graduate with a pass.

(d) Student who obtains a cumulative grade point average of 2.40 and above but has a maximum of 6 units outstanding including any compulsory course(s) not passed will be referred in the outstanding courses and obtain a reference.

(e) Student who has obtained a cumulative grade point average of 2.40 and above but has more than 6 units outstanding will be asked to repeat (Fail/Repeat).

(f) Student who has obtained a cumulated grade point average that is below 2.40 but is above 1.50 will be asked to repeat (Fail/Repeat).

(g) Student who has obtains a cumulative grade point average which is below 1.50, will be asked to withdraw (Fail/Withdraw).

## **DURATION 2 SEMESTERS**

<b>PGD</b>	<b>Computer</b>	<b>Course Title</b>	<b>Unit</b>	<b>Status</b>
<b>Science</b>	<b>Courses</b>		<b>s</b>	

### **FIRST**

#### **SEMESTER**

##### **Course Code**

CSC 701	Computer Programming I	3	C
CSC 703	Digital Computer Logic I	3	C
CSC 705	Database Design and Management	3	E
CSC 707	Fundamentals of Software Engineering	3	C
CSC 709	Principles of Compiler Construction	3	C
CSC 711	Computer Architecture	3	C

Total Units: 18

### **SECOND SEMESTER**

<b>SECOND</b>	<b>Course Title</b>	<b>Unit</b>	<b>Status</b>
<b>SEMESTER</b>		<b>s</b>	

##### **Course Code**

CSC 702	Computer Programming II	3	C
CSC 704	Digital Computer Logic II	3	C
CSC 706	Data Structure and Algorithms	3	C
CSC 708	Operating Systems	3	E
CSC 710	Numerical Computation	3	C
CSC 712	Project	6	C

### **33.2 COMPUTER SCIENCE- MASTERS of SCIENCE (M.Sc.) CURRICULUM**

#### **1. Admission Requirements**

(i) Candidates with Bachelor's degree in ANY of the COMPUTING SCIENCE disciplines as contained in the current "NUC BMAS for COMPUTING" from an approved University must obtain a minimum of second class lower division with a CGPA of 3.0/5.0.

(ii) Candidates with Bachelor's degree in Mathematics, Physics, Engineering, and other relevant Science courses must obtain a minimum of second class lower with a CGPA of 3.0/5.0. In addition, the candidates must have a **PGD in Computer Science** with minimum score of 60% or CGPA of 3.0/5.0.

(iii) Candidates with at least a third class degree or HND in Computer Science from an approved Institution may also be considered for admission. Candidates must have PGD with 60% or CGPA of 3.0/5.0.

(iv) Holder of PGD in Computer Science must have a minimum average of 60% for graduates in relevant B.Sc degrees or 70% for HND holders in Computer Science or Computer Technology.

**Additional Requirements:** At least 5 Credit passes at 'O' Level including English, Mathematics, Physics, Chemistry and any other relevant science subject.

#### **2. Teaching Faculty**

Only the following categories of staff may teach postgraduate courses:

(i) Lecturers of the rank of Lecturer Grade One and above who are themselves not pursuing higher degree studies under supervision.

(ii) Lecturers who have at least one year's post-doctoral University teaching experience.

(iii) In special circumstances, other categories of teachers approved by the Board on the recommendation of the appropriate department.

#### **3. Minimum Requirements for the Award of Degree**

To qualify for the award of a M.Sc. degree in Computer Science a candidate must:

(a) Take and pass at least 27 units of courses that must include CSC898.

(b) Student who obtains cumulative grade point average (CGPA) of 4.50 or higher and satisfies requirement 3 (a) above will graduate with Distinction.

(c) Student who obtains CGPA of 2.40 or higher but less than 4.50 and satisfied requirement 3 (a) above will graduate with a pass.

(d) Student who obtains a cumulative grade point average of 2.40 and above but has a maximum of 6 units outstanding including any compulsory course(s) not passed will be referred in the outstanding courses and obtain a reference.

(e) Student who has obtained a cumulative grade point average of 2.40 and above but has more than 6 units outstanding will be asked to repeat (Fail/Repeat).

(f) Student who has obtained a cumulated grade point average that is below 2.40 but is above 1.50 will be asked to repeat (Fail/Repeat).

(g) Student who has obtained a cumulative grade point average which is below 1.50 will be asked to withdraw (Fail/Withdraw).

(h) Satisfy all other requirements stated in the Regulations of the School of Postgraduate Studies.

<b>Scoring Grading Systems Marks</b>	<b>and Letter Grade</b>	<b>Grade Points</b>
70 and above	A	5.0
60-69	B	4.0
50-59	C	3.0
45-49	D	2.0
40 – 44	E	1.0
Below 40	F	0.0

(i) A Grade Point Average (GPA) of 2.40 will qualify a student for a pass in Masters by Course-work

(ii) A GPA of 4.50 will qualify a student for a pass with Distinction in Masters by Course-work

(iii) A student with a GPA below 1.50 will be asked to Withdrawal in all cases

(iv) A GPA of 4.00 in Masters by Course-work will qualify a student for direct-entry into the Ph.D. programme

(v) A GPA of 3.50 in Masters by course-work will qualify a student for entry into the M.Phil. programme

(vi) A student with a GPA of 4.00 in M.Phil. level will be allowed to proceed to thesis writing.

### **M.Sc. Computer Science Courses FIRST SEMESTER**

<b>Course Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Status</b>
CSC 809	Advanced Computer Architecture	3	C
CSC 811	Computer Communications and Networks	3	C
SCI 801	Management and Entrepreneurship	3	C
CSC 821	Advanced Software Engineering	3	C
CSC 825	Advanced Programming Languages	3	C

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### **SECOND SEMESTER**

<b>Course Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Status</b>
CSC 808	Compiler Design and Construction	3	C
CSC 814	Advanced Database Systems	3	C
CSC 820	Human Computer Interaction	3	C
SCI 802	ICT and Research Methodology	3	C
CSC 806	System Security	3	C
<b>TOTAL Units</b>		<b>15</b>	

### **THIRD SEMESTER**

CSC 801	Advanced Topics in Computer Science	3	C
CSC 805	Advanced Artificial Intelligence	3	C
CSC 827	Seminar	3	C
CSC 829	Advanced Operating System	3	
<b>TOTAL Units</b>		<b>12</b>	

### **FOURTH SEMESTER**

<b>Course Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Status</b>
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**DURATION: FOUR (4) SEMESTERS****SYNOPSIS OF MASTERS OF SCIENCE (M.Sc.) COURSES OFFERED IN THE DEPARTMENT OF COMPUTER SCIENCES:****COURSE DESCRIPTION****CSC 801: Advanced Computer Graphics (3 Credit Units)**

Prerequisite: Knowledge of C.

Reflection models. Texture and models, texture and environment mapping, advanced ray tracing, radiosity method, volume rendering, advanced modelling techniques, simulation and animation.

**CSC 802: Advanced Computer Algorithms (3 Credit Units)**

Review of data structures; linear data structures, hashing, trees, graphs, recursion. Complexity classes; empirical measurements of performance; time and space tradeoffs analysis. Algorithmic strategies: Brute-force algorithms; greedy algorithms; divide-and-conquer; backtracking; branch-and-bound; minimum spanning tree, heuristics; pattern matching and string/text algorithms; numerical approximation algorithms. Tractable and intractable problems.

**CSC 803: Advanced Topics In Computer Science (3 Credit Units)**

Quick review of the fundamental technologies: parsing, bytecodes, interpretive systems in general and run-time support, especially memory management. Analysis and classification of existing embedded languages according to the language paradigms used and the features included, without reference to the implementations. Analysis of the implementations of existing embedded languages. Review and study of topical issues and current development in the area of Computer Science.

### **CSC 804: Advanced Computer Architecture (3 Credit Units)**

Advanced computer architecture including discussion of instruction set design (RISC and CISC), virtual memory system design, memory hierarchies, cache memories, pipelining, vector processing, I/O subsystems, co-processors, and multiprocessor architectures. Case studies of current systems.

Prerequisite: U.G. Computer Architecture.

### **CSC 805: Artificial Intelligence (3 Credit Units)**

Introduction to basic programming techniques of artificial intelligence (AI). Domain analysis; representation of Knowledge and strategies; control on inference and search; development of interactive intelligence CAI programs; the role of analogical reasoning. The main contents are symbol manipulations and AI problem solving techniques. Topics include LISP primitives, LISP objects and evaluation, recursion and iteration and data abstraction (association lists, properties and DESTRUCT), macros, object-centered programming, symbolic pattern matching and basic solving methods.

### **CSC 806: Advanced Computer Vision (3 Credit Units)**

Analysis of advanced topics in automated reconstruction of imaged objects and computer interpretation of imaged objects; techniques for three-dimensional object reconstruction; computing motion parameters from sequences of images; computational frameworks for vision tasks such as regularization, and stochastic relaxation; approaches for autonomous navigation. Depth image analysis; novel imaging techniques and applications; and parallel architectures for computer vision.

### **CSC 807: Compiler Design and Construction (3 Credit Units)**

Anatomy of a compiler; lexical analysis (scanning); syntax analysis (parsing); syntax-directed translation; semantic analysis, intermediate code generation; code generation and optimization. Advanced topics include garbage collection; dynamic data structures, pointer analysis, aliasing; code scheduling, pipelining; dependence testing; loop level optimization; superscalar optimization; profile-driven optimization; debugging support; incremental parsing; type inference; advanced parsing algorithms; practical attribute evaluation; function in-lining and partial evaluation.

### **CSC 808: Bioinformatics (3 Credit Units)**

Study of Forensics: Principles and practice of identification; Pattern matching and recognition. Computer Forensics: pattern recognition, data mining, machine learning algorithms, and visualization. Sequence alignment, applications to biological sciences – DNA, gene finding, genome assembly, drug design, drug discovery, protein structure alignment, protein structure prediction, prediction of gene expression and protein-protein interactions, genome-wide association studies and the modelling of evolution.

### **CSC 810: Computer Organization (3 Credit Units)**

Study of representative digital computer organization with emphasis on control unit logic, input/output processors and devices, asynchronous processing, concurrency and parallelism. Memory hierarchies.

### **CSC 811: Computer Networks (3 Credit Units)**

Channels and channel capacity; introduction to information theory; sharing network resources: telecommunication history; circuit switching and packet switching; multiplexing; FDM, TDM, statistical multiplexing; virtual circuits and datagrams; advantages and disadvantages; sharing the medium: Aloha, CSMA (persistent and non-persistent), CSMA-CD, token passing, CDMA, wireless LANs and simple performance analysis; dealing with errors: errors, coding and redundancy; hamming theory and codes; CRCs, ARQ protocols; CR selective retransmission and flow control; internetworking and the internet: ISPs, datagram forwarding; the DNS; IPv4; addressing and forwarding; encapsulation and address resolution; TCP and UDP; ports and congestion controls; example applications; modelling data networks: services and protocols; layered architectures; the OSI 7-layer model; introduction to queue theory; physical media; LANs and bridging; WANs and point-to-point links; routing; addressing and routing in the internet; end-to-end communication in the internet; and application protocols. Cyber space technology: Cyber Crime, Cyber Security and models of Cyber Solution.

### **CSC 812: Designing Complex Software Systems (3 Credit Units)**

Designing new computational systems and the software that drives them is both hard and interesting. One important style of computer science research, often called experimental systems research, revolves around such design activities. Research in this style seeks to advance our understanding of, and our ability to create, general computer systems that support the development and use of more domain-specific applications.

### **CSC 813: Database Systems (3 Credit Units)**

A brief introduction to database concepts: file systems and databases, and the relational database model; design concepts and implementation: entity relationship (E-R) modelling; normalisation of database tables and structured query language; database design and implementation. Transaction management and concurrency control and distributed database management systems; database privacy, security, failure and recovery. Object-oriented databases; client/server systems; data warehouse; data mining; databases in electronic commerce; web database development and database administration.

### **CSC 814: Digital Picture Processing (3 Credit Units)**

Basic concepts of image formation and image analysis: imaging geometry, sampling, filtering, edge detection, Hough transforms, region extraction and representation, extracting and modelling three-dimensional objects. Students will be assigned analytical and programming assignments to explore these concepts.

### **CSC 815: Expert System (3 Credit Units)**

Review of Artificial Intelligence and its place in experts systems. Introduction to expert systems and expert support system. Characteristics of experts systems. Knowledge-based systems. Types of expert systems.

### **CSC 816: Digital Signal Processing (3 Credit Units)**

Introduction; brief review of analogue and digital signal processing systems; discrete time linear time-invariant signal processing systems; design of finite impulse response digital filters; introduction to z-transforms and infinite impulse response type discrete time filters; design of infinite impulse response type digital filters using analogue filter approximations; digital processing of analogue signals and other data; introduction to the discrete Fourier transform.

### **CSC 817: Internet Technology (3 Credit Units)**

Introduction to Internet, standards and specifications; survey of contemporary Internet technologies; Current Internet tools; Designing and publishing a web server; WWW programming Mark-up languages; Using alternative protocols in WWW, Adding multimedia features to WWW; Server side programming, client programming and database programming for the web; Security and Privacy.

### **CSC 818: Electronic Commerce Technologies (3 Credit Units)**

Introduction; the sociology and psychology of electronic commerce: building, recognising, managing and making use of online communities in web-based environments, theories of online presence and cooperation; a guide to e-commerce in general: how to differentiate e-commerce today from e-commerce yesterday, current problems of e-commerce and interesting solutions and approaches to those problems; a guide to knowledge commerce: understanding knowledge as a commodity and as a process, and representing it in web-based environments; web architecture: structural design of e-commerce systems, client-server architecture, 2-, 3-, n-tier design, server farms, scalability, integration of legacy systems, Java beans, Enterprise Java beans and java server pages, particular problems posed by 24/7 operation and an open user community; data interchange: exchanging data over the internet, XML, style sheets, document type definition, metadata and document discovery, interchange of processes using WSDL and SOAP as examples; usability: user-interfaces design for websites, use of human computer interaction methodologies in evaluating user interfaces; electronic payments: technologies that support the processing of electronic payments, characteristics and properties of electronic payment systems; mass personalization and the virtual customer: automation of the customer relationship, use of data to customize the web experience, cookies and their risks, rule-based filtering, implicit profiling, collaborative filtering.

### **CSC 819: Object Oriented Programming (3 Credit Units)**

Procedural programming and its limitations. Software development methodology: Fundamental design concepts and principles; structured design; testing and debugging strategies; test case design; programming environments; testing and debugging tools. Basic concepts and formal methods of Object Oriented Programming (OOP). Study of the features of a popular Object Oriented Programming Language such as JAVA, Visual Basic and C++. Applications of OOP in systems software development.

### **CSC 820: Human Computer Interaction (3 Credit Units)**

Positive and negative effects of the computers and ICT on human beings and societies. Computing as a profession, organization using computers, sociological impacts of computers, individuals and computers, computer as an audit tool, computers in banking, computer based information systems and telecommunications, computers in consultancy services, design and construction, education, government insurance, stock-brokerage, legal and medical professions.

**CSC 821: Operating Systems (3 Credit Units)**

Structural design aspects of an operating system: process model, inter-process communication, synchronization mechanisms, resource management, and scheduling. Protection issues. Implementation issues of modern operating systems. Distributed operating systems. Deadlock detection, recovery, and avoidance. Case studies. Project(s).

**CSC 822: Introduction to Quantum Computation (3 Credit Units)**

The theory of quantum information and quantum computation; classical information theory, compression of quantum information, transmission of quantum information through noisy channels, quantum entanglement, quantum cryptography; classical complexity theory, quantum complexity, efficient quantum algorithms; quantum error-correcting codes, fault-tolerant quantum computation; and physical implementations of quantum computation.

**CSC 823: Operations Research (3 Credit Units)**

Introduction to operations research. Treatment of some of these topics and the applications of computer in their solution: Decision Theory, Game Theory, Inventory Control, Linear Programming Problems (Simplex Method of solution), Transportation Problems, Assignment Problems, Project/Network Analysis, Forecasting, Queuing Theory, Simulation.

**CSC 824: Mobile and Adaptive Systems (3 Credit Units)**

Introduction and overview; properties of wireless; PANs, LANs and WANs: Ad-hoc and infrastructure networks; physical constraints and limitations (transmission and reception), network structures and architectures, including hand-off and mobility support at the physical/link level; example technologies at the physical/link layers: PANS – bluetooth, LANs – IEEE802.11, Hiper LAN, basic GSM and GPRS network structures and protocol architectures, next generation wireless overview including UMTS, IMT-2000 and W-CDMA; mobile IP: mobile IPv4 and mobile IPv6, problems with routing, quality of service and security; overview of use of intelligence in mobile systems and power management issues; file systems: CODA and the like and mobile infrastructure support. Adaptive and re-configurable systems, mobile multimedia and its relationship to proxying, context sensitive applications, ubiquitous computing, pervasive computing and ambient networking, overlay networks and vertical hand-offs, programmable networking and applications for mobile systems, code mobility and control/signaling.

### **CSC 825: Programming Languages (3 Credit Units)**

Comparative study of the organization and implementation of a variety of programming languages and language features. Design principles are explored and applied in a historical review of major languages. Procedural, functional, logic-based, object-oriented and parallel languages. Research issues such as polymorphism, formal semantics and verification explored in depth.

### **CSC 827: Theory of Computation (3 Credit Units)**

Formal languages, Chomsky hierarchy, formal computation and machine models, finite automata, pushdown automata, Turing machines, Church's Thesis, Recursively enumerable sets. Diagonal arguments. Reducibility, complexity classes.

### **CSC 828: Software Engineering (3 Credit Units)**

Software engineering and its place as an engineering discipline. Life cycle of software system: Requirements analysis, development, operation and maintenance. Software metrics: Portability, Re-usability, Correctness, Reliability, Efficiency, Usability, Integrity, Maintainability and Flexibility. Software quality and testing. Software architecture: architecture description languages, pattern-oriented software architecture, component-based development, distributed software architecture using middleware, enterprise application integration, architecture for mobile and pervasive systems and model driven architecture. Advanced modelling: UML extension mechanisms, object constraint language and model checking. Software project management: Study of interpersonal process decision making styles, problem solving concepts and procedures, creative effort, conflict resolution, leadership and assessment. Concepts of motivation, team work and group dynamics. Software engineering and law: intellectual property law, professional ethics and code of conduct. Patents, trademarks, copyright, trade secrets, privacy and confidentiality, contracts and licensing, government regulations, global legal issues including Internet law and cyber crime. Overview of Open Source Software.

## **33.3 M. Phil / PhD PROGRAMME IN COMPUTER SCIENCE**

### **PROGRAMMES PHILOSOPHY**

#### **a. M.Phil. (Computer Science)**

The M.Phil. Programme is designed to meet the research needs of the candidates with the M.Sc. degree in Computer Science. It is intended to foster the development of independent research skills to enhance their ability to proceed to the Ph.D. degree programme. The M.Phil. Computer Science degree is mainly by course work and research activities in Computer Science. Research for this degree will be independently carried out by the candidates under the supervision of members of staff of the Department. The M.Phil. Programme is designed to give more basic research opportunities and more exposure to master-level course work and seminars to the prospective candidates. The programme is also designed to extend frontiers of knowledge and making meaningful contributions to knowledge, particularly in computer science and information technology, which are areas of intense research and application activities worldwide. Through this programme much needed research and leadership personnel for academics, institutions, government and industry will be produced for national and international deployment.

#### **b. Ph.D. (Computer Science)**

The Ph.D. in Computer Science is a research degree which culminates in a unique thesis that demonstrates original and creative research. As a research-oriented degree, the Ph.D. in Computer Science prepares exceptional students for careers at the cutting edge of academia, industry and government. Students are expected to demonstrate excellence in both defining and executing a substantial research project that forms a novel contribution to the state of the art in computing. With a highly individualised programme of study, the degree provides students with depth in their chosen research area coupled with a rigorous breadth of knowledge across the discipline. The Ph.D. students also become visible members of the research community by publishing research and through oral presentations at conferences and research seminars. Upon completing the Ph.D. programme, students are able to set their own research direction, teach and advise students, and work at the forefront of cutting-edge research in academia or at an industrial laboratory.

### **PROGRAMMES OBJECTIVES**

#### **M.Phil. (COMPUTER SCIENCE)**

The specific objectives of the programmes are to:

- i. expose candidates to current researches and methodological models particularly in the Computer Science and information technology, which are areas of intense research and application activities worldwide;
- ii. provide and promote sound practical and theoretical training in computer hardware, software and application areas, that will make the students useful in both private and public sectors of the economy; enable candidates to identify computing and information technology related problems and proffer recommendations and strategies for their solutions, and
- iii. develop in candidates the mastery of appropriate skills to articulate a critical analysis of advanced studies in computer science and information technology.

#### **Ph.D. (Computer Science)**

### **WHEN WAS PhD COMPUTER SCIENCE APPROVED**

#### **1. Application for Admission**

The objective of the Ph.D. in Computer Science programme is to educate highly qualified researchers required for the expansion of fundamental knowledge and technological innovation through research and development, as well as the needs of institutions of higher learning.

#### **ADMISSION REQUIREMENTS**

##### **MASTER OF PHILOSOPHY (COMPUTER SCIENCE)**

(a) Application for admission to a programme of advanced study and research leading to the M.Phil.degree must be made on a prescribed form and addressed to the Admission Officer of the School of Postgraduate Studies of the University. Application will be considered in the first instance by the Department in which the proposed programme lies. The department will make recommendations to the Board regarding the admission and supervision of the student.

(b) The subject(s) proposed for special study and research must be defined as precisely as possible. A subject will not be approved unless it is one for which there are requisite facilities and supervision.

(c) Every applicant must furnish with his application, satisfactory evidence in the form of an academic letter of reference that he is qualified to undertake advanced study and research and that he has a satisfactory knowledge of the language required for such study.

(d) The Board may require an applicant as a condition of Admission to undergo such tests as may be prescribed by the University or Department concerned with his proposed work, or to take such prerequisite or concurrent course and examinations as the Board may prescribe.

A graduate of this or other accredited University who has obtained the appropriate Bachelors degree with at least at Second Class (Upper Division) Honours or Masters Degree at the appropriate level or equivalent may be admitted as a postgraduate student and registered as a candidate for the degree of Master of Philosophy.

**a) In clear terms, the requirements for admission into the M.Phil. degree programme consist of:**

- i) M.Sc. in Computer Science from Caleb University, Nigeria with a CGPA of not less than 3.0 on a 5-point credit scale or a minimum overall score of 60%, or
- ii) M. Tech. or M.Sc. in Computer Science from other recognised institutions with a CGPA of not less than 3.0 on a 5point credit scale or a minimum overall score of 60%.
- iii) Senate may admit to the M.Phil. degree programme, other persons who hold such qualifications as may from time to time be recognized by Senate
- iv) All applications for the programme shall be subjected to other School of Postgraduate Studies regulations and departmental carrying capacity.

**b) Requirements for Transfer to Ph.D. Degree Programme**

A student who enters the M.Phil. degree programme may be allowed to transfer to the Ph.D. programme if he/she makes a satisfactory progress in his/her study. Such a student will be expected to fulfil the following requirements:

- i) candidate has completed all course work with a CGPA of not less than 3.5;
- ii) candidate successfully presented at least two seminars; proposal and progress seminars,
- iii) candidate prepares and submits to the School of Postgraduate Studies through the Department, a research plan considered suitable for pursuing a Ph.D. degree;

iv) candidate presents a detailed report of research work done up to the time and submit to the School of Postgraduate Studies any relevant published and unpublished materials (if any) that can be assessed by the Department;

v) candidate passes an oral transfer examination to be conducted by the School of Postgraduate Studies with the panel of examiners drawn from his/her Department on the subject of the research and related topics to the field of study; and

vi) fulfilled all other conditions as prescribed by the Board of School of Postgraduate Studies of the University.

### **3. Register of Postgraduate Students**

(a) The name of an applicant who has been admitted will be placed on a University Register. Registration shall normally be effective at the beginning of the first semester of each academic session but may, on the recommendation of the department concerned and if the Board is satisfied that it is in the interest of the student, be effective at the beginning of the semester following that in which the application is approved by the Board.

(b) Every candidate shall be required to renew his registration at the beginning of each session of his prescribed period of study.

(c) Candidate who fails to register for a period of three (3) consecutive semesters shall be deemed to have withdrawn from his course of study. However, the candidate has the right to appeal to the Dean, COPOS through the Head of Department

### **4. Scheme of Study, Research Supervisors and Course Teachers**

(a) On the recommendation of the appropriate Department, the Board shall:

(i) Prescribe for each student on admission a minimum period of study, and

(ii) Appoint supervisors with whom the student will be obliged to maintain such contacts as prescribed by the Board.

(b) An applicant who is admitted may be required to:

(i) attend courses, as approved by Senate, in the general field of knowledge within his proposed study and research field and pass such examination as prescribed; and

(ii) satisfy such further conditions as shall be specified by the relevant department.

## **5. Period of Study**

(a) Every candidate for the degree of Master of Philosophy must pursue a full-time course of study and research in the University for a period not less than two sessions or part-time for a period not less than three sessions.

(b) The period of full-time study may be reduced to not less than twelve consecutive calendar months, and the period of part-time study may be reduced to not less than four semesters in the case of graduates holding an appropriate postgraduate degree of Caleb University or an approved equivalent.

(c) Candidates admitted to part-time study will normally be required to attend courses of instructions during the first two semesters of their programme of study.

(d) The Registration of a candidate shall lapse if after six(6) semesters of full-time study or eight (8) semesters of part-time study the candidate has not presented himself for examination; in special cases, applications may be made for the extension of the period.

## **6. Research Supervisors**

(a) Each candidate for the degree of M.Phil. shall have at least two supervisors who must have a minimum of three years post-doctoral research/teaching experience except that a teacher without a doctoral degree but of the grade of Senior Lecturer or above shall be eligible to act as supervisor, provided that such teacher is not pursuing higher degree studies under supervision.

(b) Where there is more than one supervisor, one of them shall be designated the major or Lead supervisor. The supervisors shall jointly prepare at the end of each session a report on each student upon which the board can determine the candidacy of the student.

(c) No member of staff shall have concurrent responsibility of more than six candidates for both M.Phil. and Ph.D. programme research degree without the approval of the Board on the recommendation of the appropriate department.

## **7. Recognition of Partial Study Elsewhere**

(a) Candidate for M.Phil. degree programme and members of staff on special leave may be permitted to pursue part of their studies elsewhere other than in the University, provided the Board is satisfied that this is advisable in the interest of the work.

(b) No candidate shall be granted part-time registration or be permitted to prosecute these studies elsewhere, unless the Board is satisfied that adequate facilities are available where the candidate intends to work and the supervision is effective throughout the period of study.

### **8. Course-work and Research**

The period of postgraduate studies for the degree of Masters of Philosophy will in general be devoted in equal parts to prescribed courses and to research. On the recommendation of the Department concerned, however, the Board may in special cases prescribe different proportions of course-work and research.

### **9. Examination of Course-work**

(a) Examination in the prescribed subjects shall be as approved by Senate.

(b) For other requirements, see regulations governing Postgraduate Course-Work, Units and Grades

## **GUIDELINES FOR DISSERTATION**

### **Title of Dissertation**

(a) A candidate for the degree of M.Phil. shall be required to submit a Dissertation.

(b) Each candidate shall, not less than six months before submitting himself for examination, seek approval for the Title of his Dissertation.

(c) After the title has been approved, it may not be changed except with the permission of the Board.

### **Standard of Research**

Research for the Degree of Master of Philosophy is meant to include theoretical, analytical and experimental investigations with a view to furthering knowledge or understanding. A candidate may, however, submit for the approval of the Board, proposals for a critical survey of existing methods and knowledge, the systematization and logical exposition of which may be considered as a contribution to knowledge in the field surveyed.

## **Preparation and Contents of Dissertations**

- (a) Dissertation submitted for the degree of M.Phil. must not normally exceed 45,000 words in length and must be accompanied by a short abstract comprising not more than 300 words.
- (b) The Dissertation must be a connected piece which may comprise a series of papers on related topics, provided that these are accompanied by an adequate explanation of their relationship to each other and to the wider context of the subject. Work on component parts thereof, if already published, shall be submitted in the published form.
- (c) Only material which is freely available for publication may be incorporated in a Dissertation unless Senate otherwise permits. A candidate must state the sources from which his information is derived.
- (d) A candidate shall not be permitted to submit as his dissertation, a Dissertation for which a degree has been conferred on him in this or any other University; but he shall not be precluded from incorporating work which he has already submitted for a degree in this or any other University in dissertation covering a wider field, provided that he shall indicate, on his entry form and also in his dissertation, any work which has been so incorporated.
- (e) A candidate shall be required to sign a declaration that the Dissertation represents his original work. The declaration should be countersigned by his supervisor.
- (f) Where the Dissertation is the result of research carried out by the candidate jointly with others, the extent of the candidate's own original contribution must be clearly stated.
- (g) Every Dissertation shall normally be written in English, in cases where a dissertation is permitted to be written in a language other than English, a summary in English shall be provided.

## **Submission of Dissertation**

- (a) A candidate shall submit three copies of his Dissertation firmly secured but otherwise unbound, to the Head of his Department not earlier than the beginning of the last semester of his prescribed period of study and not later than six weeks to the date of examination. The Head of Department should forward the Dissertation to the Postgraduate office not later than one week after submission by the candidate.

(b) No Dissertation shall be deemed to have satisfied the requirements for the award of the M.Phil. degree unless it is certified as having met all the requirements including all the following:

(i) all copies be spaced typescript on one side of the paper only;

(ii) the size of the paper shall be A4 (approximately 20cm x 30cm) except for drawings and maps on which there is no restriction of size;

(iii) the margin on each sheet shall not be less than 4cm on the right, 2.5cm at the top and 2cm at the bottom;

(iv) there shall be a title sheet showing;

- the title of the work,
- the author's name,
- the degree and
- the date of submission

(v) there shall be a certification page which will bear the signatures of the examiners;

(vi) all pages shall be numbered;

(vii) diagrams, charts etc, must not be submitted on the back of typed sheets. They should be included where possible with the text. Otherwise they may be clearly referred to in the text, numbered and folded for insertion in a pocket in the back side of volume after binding.

(viii) If the dissertation defence is successful and before the degree is conferred, the best three copies of every dissertation accepted shall be bound in a manner approved by the University Library and shall become the property of the University.

### **Examination of Dissertation**

(a) Each candidate shall be examined by not less than three examiners appointed by Senate in accordance with Regulation under **Panel of examiners** below. The examination may be oral

and partly written, may include practical work, and shall include the subject of the research and related subjects.

(b) After the examination, a report signed by all the examiners shall be submitted to the board on a prescribed form. The report shall contain:

(i) A clear and detailed evaluation of the research work as summed up in the Dissertation.

(ii) A clear assessment of the candidate's knowledge and understanding of his subject as shown in the Dissertation and subsequent examination.

(iii) An unequivocal declaration as to the acceptability or otherwise, of the Dissertation in complete or partial fulfillment of the requirements of the candidate to receive the degree.

### **Panel of examiners**

For the final oral examination of each candidate the board on the recommendation of the relevant departments shall appoint a panel of the examiners consisting of the major or sole supervisor, one internal examiner and at least one external examiner. The Head of Department shall be Chairman whose role shall be to facilitate administrative aspect of the examination.

### **General Requirements for the Award of M.Phil. Degree in Computer Science**

The requirements shall include the following as approved by the Senate for each candidate:

- a. a candidate who does not already possess the M.Sc. degree must take and pass
  - (i) 27 units of courses at the 800 – level
  - (ii) 6 units of courses at the 900 – level
- b. while a candidate who already possesses the M.Sc. degree in Computer Science of this or any other approved University must take and pass 6 units of course work from the 900-level courses.
- c. passing of written and/or practical examination in the subjects of the student's study programme;

- d. submission of a Dissertation and its acceptance by the examiner(s) appointed for the purpose;
- e. passing of an oral and / or written examination on the subject of the Dissertation and related subjects.

### **Staff Candidate Status**

A fulltime member of the academic staff or any person engaged in academic work within the University or associated institution may be admitted to proceed to higher degree in accordance with the regulations, subject to the following modifications:

- (a) the member of staff must meet the normal requirements for eligibility to pursue a programme of postgraduate studies in the area of his choice;
- (b) notwithstanding other regulations relating to part-time study, the Senate on the recommendation of the board may prescribe a minimum period of study and research not less than would be prescribed for full-time study;
- (c) where a person who has been a candidate under this regulation ceases to be a member of staff of the University, he shall apply to the Board to determine the condition of continuance of his candidature.

## **DOCTOR OF PHILOSOPHY (COMPUTER SCIENCE)**

### **1 Application for Admission to Ph.D.**

- (a) Application for Admission to a programme of advanced study and research leading to a Ph.D. degree must be made on a prescribed form and addressed to the Admissions Officer of the School of Postgraduate Studies of the University. Applications will be considered in the first instance by the department in which the proposed programme lies.
- (b) The subject(s) proposed for special study and research must be defined as precisely as possible. A subject will not be approved unless it is one for which there are requisite facilities and supervision.

(c) Every applicant must furnish with his application, satisfactory evidence in the form of an academic letter of reference that he is qualified to undertake study and research and that he has a satisfactory knowledge of the language required for such study.

(d) The Board may require an applicant as a condition of Admission to undergo such tests as may be prescribed by the University or Department(s) concerned with his proposed work, or take such prerequisite or concurrent courses and examinations as the Board may prescribe.

## **2 Register of Postgraduate Students**

(i) The name of an applicant who has been admitted will be placed on a University Register. Registration shall normally be effective at the beginning of the first semester of each academic session but may, on the recommendation of the department concerned and if the Board is satisfied that it is in the interest of the student, be effective at the beginning of the semester following that in which the application is approved by the Board.

(ii) Every candidate shall be required to renew his registration at the beginning of each session of his prescribed period of study.

(iii) Candidate who fails to register for a period of three (3) consecutive semesters shall be deemed to have withdrawn from his course of study. However, candidate has the right to appeal to the Dean, COPOS through the Head of Department.

## **3 Scheme of Study, Research Supervisors and Course Teachers**

(a) On the recommendation of the appropriate Department, the board shall:

(i) prescribe for each student on admission a minimum period of study and

(ii) appoint supervisors with whom the student will be obliged to maintain such contacts as prescribed by the Board.

(b) An applicant who is admitted may be required to:

(i) attend courses, as approved by Senate, in the general field of knowledge within which his proposed study and research fall, and pass such examination as prescribed; and

(ii) satisfy such further conditions as shall be specified by the relevant department.

#### **4 Period of Study**

(a) A candidate for the degree of Doctor of Philosophy who has been admitted under Regulation 1(a) above shall pursue a full-time course for a maximum period of ten semesters and a part-time course for a maximum period of fourteen semesters on a subject approved in advance by the Board.

(b) All other candidates shall from the date of registration of the degree pursue full-time course of supervised study and research in the University for maximum period of six (6) semesters or a part-time course of not more than eight (8) semesters on a subject approved in advance by the Board.

(c) Save in exceptional circumstances, candidates who are not holders of a Bachelor's or Master's degree of Caleb University shall be required to spend at least two semesters of full – time study.

(d) No candidate shall be granted part-time admission unless the Board is satisfied that supervision will be effective throughout the period of registration.

#### **5 Research Supervisors**

(a) Each candidate for the degree of Ph.D. shall have two supervisors who must be either Professors or Senior Lecturers with doctoral degrees.

(b) Where there is more than one supervisor, one of them shall be designated the major supervisor. The supervisor shall prepare at the end of each session a report on each student upon which the Board can determine the candidature of the student.

(c) No member of staff shall have concurrent responsibility of more than four candidates for any research degree without the approval of the Board on the recommendation of the appropriate department.

(d) Only Professors and Lecturers who have had at least two year Post-doctoral University teaching experience may teach postgraduate courses at the Ph.D. level.

#### **6 Recognition of Partial Study Elsewhere**

(a) Candidates for Ph.D. degree programme and members of staff on special leave may be permitted to prosecute part of their studies elsewhere other than in the University, provided the Board is satisfied that is advisable in the interest of the work.

(b) No candidates shall be granted part-time registration or be permitted to prosecute these studies elsewhere, unless the board is satisfied that adequate facilities are available where the candidate intends to work and the supervision is effective throughout the period of study.

## **7 Reports by Supervisors**

(a) Every candidate must submit to his supervisor when called upon, a report outlining the progress in his research during the period.

(b) The supervisor through the appropriate department shall furnish a report on each candidate to the Board at least once every academic year. In case of a serious delay in a student's work from any cause whatsoever, the department will notify the board immediately.

(c) The registration of a candidate shall normally not be renewed if the Board, on the recommendation of the department considers the progress of the candidate unsatisfactory.

## **8 Examination of Course-work**

Examination in the prescribed subjects shall be as approved by Senate.

For other requirements, see regulations governing Postgraduate course-work, units and grades.

## **GUIDELINES FOR THESIS**

### **Title of Thesis**

(a) A candidate for the degree of Ph.D. shall be required to submit a Thesis.

(b) Each candidate shall, not less than two months before submitting himself for examination, seek the approval of Title of his Thesis.

(c) After the title has been approved, it may not be changed except with the permission of the Board.

## **Standard of Research and Representation**

(a) Thesis to be approved for the degree shall be an original work displaying competence in the field of study combined with exercise of critical judgment, and containing material worthy of publication as definite contributions to knowledge. It must also be satisfactory as regard literary presentation.

(b) A Thesis considered inadequate or worthy of the degree may not be re-submitted unless the Board decided that it be re-submitted in a revised or improved form after a further period as may be recommended by examiners.

## **Preparation and Content of Thesis**

(a) A Thesis submitted for the degree of Doctor of Philosophy must not normally exceed 90,000 words in length and must be accompanied by a short abstract comprising not more than 400 Board.

(b) The Thesis must be a connected piece which may comprise a series of papers on related topics, provided that these are accompanied by an adequate explanation of their relationship to each other and to the wider content of the subject. Work on component parts thereof, if already published, shall be submitted in the published form.

(c) Only material which is freely available for publication may be incorporated in a Thesis unless Senate otherwise permits. A candidate must state sources from which his information is derived.

(d) A candidate shall not be permitted to submit as his thesis, a thesis for which a degree has been conferred on him in this or any other University; but he shall not be precluded for a degree in this or any other University in a Thesis covering a wider field, provided that he shall indicate, on his entry form and also on his Thesis, any work which has been so incorporated.

(e) A candidate shall be required to sign a declaration that the Thesis represents his original work. The declaration should be countersigned by his supervisor.

(f) Where the Thesis is the result of research carried out by the candidate jointly with others, the extent of the candidate's own original contribution must be clearly stated.

(g) Every Thesis shall normally be written in English, in cases where a Thesis is permitted to be written in a language other than English, Summary in English shall be provided.

### **Submission of Thesis**

(a) A candidate shall submit three copies of his Thesis firmly secured but otherwise unbound, to the department not earlier than the beginning or the last semester of his prescribed period of study and not later than six weeks to the date of examination. The Department should forward the thesis to the Postgraduate office not later than one week after submission by the candidate.

(b) No thesis shall be deemed to have satisfied the requirements for the award of the Ph.D. degree unless it is certified as having met all the requirements including all the following:

(i) all copies shall be double spaced typescript on one side of the paper only;

(ii) the size of the paper shall be A4 (approximately 20cm x 30cm) except for drawings and maps on which there is no restriction of size;

(iii) the margin on each sheet shall not be less than 4cm on the left-hand side, 2cm on the right, 2.5cm at the top and 2cm at the bottom;

(iv) there shall be a little sheet showing:

- the title of the work,
- the author's name,
- the degree and
- the date of submission

(v) there shall be a certification page which will bear the signatures of the examiners;

(vi) all pages shall be numbered;

(vii) diagrams, charts etc. must not be submitted on the back of typed sheets. They should be included where possible with the text; otherwise they may be clearly referred to in the text, numbered and folded for insertion in a pocket in the back side cover of volume after binding;

(c) If the Thesis defence is successful and before the degree is conferred, the best three copies of every thesis accepted shall be bound in a manner approved by the University Library and shall become the property of the University.

### **Examination and Conditions Precedent**

(a) The examination for the degree of Doctor of Philosophy shall be by submission of a Thesis and by an oral examination on the subject of the Thesis and on the general field to which the subject belongs.

(b) Not less than six months before he submits himself for examinations, a candidate shall through his department seek approval of the Board for the title of his Thesis. The title of the thesis once approved, cannot be changed without the approval of the Board.

(c) Before seeking permission to be examined, a candidate must submit through his department to the Board a certificate from his supervisor to the effect that he has satisfactorily completed the required study and research and he has fulfilled any special requirements under Regulations 13(b) above.

### **Examination of Thesis**

(a) The Thesis shall be sent out to three experts in the relevant field, two of whom shall be external who shall read and assess it and submit on a prescribed form, individual reports indicating their evaluation of the Thesis. The report shall contain:

(i) A clear and detailed evaluation of the research work as summed up in the Thesis;

(ii) An unequivocal declaration as to the adequacy of the Ph.D. degree.

(b) If the Board is satisfied on the basis of the reports received from at least two of the experts that the Thesis is adequate and worthy of the Ph.D. degree a panel of examiners shall be set up to conduct the oral examination of the candidate

### **Panel of Examiners**

(a) Each candidate shall be examined by not less than three examiners appointed by Senate.

(b) For the final oral examination of each candidate, the board on the recommendation of the relevant department shall appoint a panel of Examiner consisting of:

- (i) The supervisors, two internal and one external examiner who shall be selected from among the three experts mentioned in Regulation under Examination of Thesis above.
- (ii) The Head of Department shall be Chairman, whose role shall be to facilitate the administrative aspect of the examination.
- (iii) The School must be represented by a member of the Board.
- (c) After the oral examination, a report signed by the examiners shall be submitted to the Board on a prescribed form. The report shall contain:
  - (i) a clear assessment of the candidate's knowledge and understanding of his subject as shown in the Thesis and subsequent examination;
  - (ii) an unequivocal declaration as to the fitness or otherwise of the candidate to receive the degree
- (d) If the Thesis is satisfactory but the candidate fails to satisfy the examiners in the oral, the candidate may be recalled for a second oral examination after a further period of study not exceeding two semesters from the date of the first examination.

### **Requirements for the Award of Ph.D.**

The requirements shall include the following as approved by Senate for each candidate:

- (i) passing of written and/or practical examination in the subjects of the student's study programme;
- (ii) submission of a Thesis and its acceptance by the examiners appointed for the purpose;
- (iii) passing of an oral examination on the subject of the thesis and related subjects.

### **Staff Candidate Status**

A full-time member of the academic staff or any person engaged in academic work within the University or associated institution may be admitted to proceed to a Ph.D. degree in accordance with the regulations, subject to the following modifications:

(i) the member of staff must meet the normal requirements for eligibility to pursue a programme of postgraduate studies in the area of this choice;

(ii) notwithstanding other regulations relating to part-time study, the Senate on the recommendation of the Board may prescribe a minimum period of study and research not less than would be prescribed for full-time study;

(iii) where a person who has been a candidate under this regulation ceases to be a member of staff of the University, he shall apply to the board to determine the condition of continuance of his candidature.

## **PROGRAMME REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY DEGREE IN COMPUTER SCIENCE**

### **Transfer of Candidate from M.Phil to Ph.D.**

A candidate who has been registered for the degree of Master of Philosophy for not less than one full session and who in the course of his work has shown exceptional ability may be transferred to candidature for the degree of Doctor of Philosophy subject to the following conditions:

(i) that he has completed the course work requirements for the degree of M.Phil. at the appropriate Grade Point Average (GPA) level;

(ii) that he submits to the Board detailed plan of research adjudged suitable as a basis for the thesis for the degree of Doctor of Philosophy;

(iii) that he submits a detailed report of research work done to date or any other material published or unpublished arising from such work.

### **Particular Requirements for the Award of Ph.D. Degree in Computer Science**

To qualify for the award of a Ph.D. degree in Computer Science a candidate shall

(a) Take and pass:

(i) three (3) units of 'Seminar' in Computer Science and

(ii) three(3) units of the 'Special Topics' course, all in the 900-level.

(b) Satisfy all the other requirements in the Regulations of the School of Postgraduate Studies.

### **33.4 ADMISSION REQUIREMENTS**

#### **Doctor of Philosophy (Ph.D) Programmes**

The requirements for admission into the Ph.D. programme consist of:

- (i) Candidates must have five credit passes including English, Mathematics, Physics, Chemistry and one other relevant Science subject such as Biology, Further Mathematics, Agricultural Science, Economics, Geography, etc at SSCE or equivalent examination in at most two sittings; or as may be determined by the University.
- (ii) Candidates with Bachelor's degree in Computer Science from Caleb University or an approved university must obtain a minimum of second class lower division with a CGPA of 3.0/5.0 or Post Graduate Diploma (PGD) in Computer Science with a CGPA not less than 3.0 on a 5-point credit scale.
- (iii) Candidates must have M.Sc. Computer Science degree with a CGPA of 4.0/5.0 and thesis score not lower than 60% (B).
- (iv) M.Sc. in Computer Science from the Caleb University, Nigeria with a CGPA of 3.0 - 3.5 on a 5-point credit scale, or
- (v) M.Tech. or M.Sc. in Computer Science from other reputable institutions with a CGPA of not less than 3.5 on a 5-point credit scale or a minimum overall score of 60%, or
- (vi) M.Phil. in Computer Science from the Caleb University Nigeria or other recognized / reputable Universities with a CGPA of not less than 3.5 on a 5-point scale credit scale or a minimum overall score of 60%.
- (vii) Candidates must demonstrate adequate intellectual capacity, maturity and effective decision making and problem solving potentials.
- (viii) Test or proposed submission may be conducted as approved by the Department.

#### **SELECTION PROCESS**

The Board of College of Postgraduate Studies shall consider all the recommendations made from academic departments for admission and decide which candidates maybe admitted. A

departmental admission committee is to be chaired by an academic staff of the Rank of Senior Lecturer and above. In a situation where these ranks are not available in a department, a Lecturer I may chair such committee.

Each candidate must complete the required application forms. Application for admission to programmes shall be submitted to the College of Postgraduate Studies. Forms for three referees' confidential reports, transcripts and certified copies of certificates shall be provided along with the main application forms. However, in exceptional cases, the completed application forms, referees' reports, transcripts and certified copies of certificates shall be sent directly to the Dean, College of Postgraduate Studies or submitted by the applicant in a sealed, signed and stamped envelope. Applications shall be considered in the first instance by the academic unit in which the applicant wishes to study.

The academic unit shall satisfy itself of the suitability of the candidate and the availability of resources, both material and human, for the successful completion of the candidate's work. An interview and/or a qualifying examination may be administered by the Department/Centre/Institute to determine the suitability of an applicant. The Head of the academic unit after due consultation with the Department Postgraduate Board of Studies shall submit in writing to the Board of Postgraduate Studies a statement on the suitability or otherwise of each applicant.

There will be a qualifying written examination for all candidates seeking admission into the postgraduate programmes in Computer Science of the University. Admission may be offered to all candidates satisfying the eligibility requirements subject to viable groups and availability of teaching facilities. Admission will be finally determined strictly by their performance in the examination.

## **DURATION OF PROGRAMME**

**a. Master of Philosophy (Computer Science):** The duration of the M.Phil. programme shall be a minimum of 18 months and maximum of 24 months on a full-time basis.

### **b. Doctor of Philosophy (Computer Science)**

The duration of the Ph.D. programme shall be as follows:

- i. i. Full-Time: A minimum of 6 semesters and maximum of 8 semesters

- ii. Part-Time: A minimum of 8 semesters and maximum of 10 semesters

## **REQUIREMENTS FOR GRADUATION**

### **M.Phil. COMPUTER SCIENCE**

To be eligible for the award of the M.Phil. degree in Computer Science, a candidate must have:

- i passed all the courses recommended by the department;
- ii successfully presented at least two seminars: proposal and progress seminars;
- iii fulfilled all other conditions as prescribed by the Board of School of Postgraduate Studies of the University, and
- iv successfully completed and defended a research thesis in an oral examination.

### **Ph.D. COMPUTER SCIENCE**

To be eligible for the award of the Ph.D. degree in Computer Science, a candidate must have:

- i successfully presented at least three seminars;
- ii fulfilled all other conditions as prescribed by the Board of the School of Postgraduate Studies of the University, and
- iii successfully completed and defended a research thesis in an oral examination by a Panel of Examiners.

<b>PROGRAMME</b>		<b>DURATION</b>	<b>COURSE</b>	<b>LOAD</b>	<b>TOTAL</b>
<b>Course Units</b>			<b>Dissertation/Thesis</b>		
<b>Post Graduate</b>		2 Semesters	33	6	<b>39</b>
<b>Diploma</b>					
<b>Master of Science</b>		4 Semesters	42	6	<b>48</b>
<b>Doctor of</b>		6 Semesters	6	<b>12</b>	<b>18</b>
<b>Philosophy</b>					

## **DURATION:**

**Master of Philosophy M.Phil. (Computer Science):** Minimum of 4 semesters and maximum of 6 semesters on a full-time basis.

**Doctor of Philosophy-Ph.D. (Computer Science):** Full–Time: A minimum of 6 semesters and maximum of 8 semesters; Part–Time: A minimum of 8 semesters and maximum of 10 semesters

**(a) M. Phil /PhD (COMPUTER SCIENCE)**

Candidates are expected to take at least three courses each semester from the available list of courses. However, Special Topics in Computing Science and Research Methodology are compulsory courses for all candidates.

**First Semester**

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>U</b>
CSC 981	Special Topics in Computing	3	0	0	3
CSC 983	Advanced Research Methodology	3	0	0	3
Elective		3	0	0	3
<b>Total</b>			<b>9</b>		
Electives					
CSC 985	Advanced Database Systems	3	0	3	3
CSC 987	High Performance Architectures	3	0	3	3
CSC 989	Communications and Networks	3	0	3	3
CSC 991	Machine Learning	3	0	3	3
CSC 986	e-Systems	3	0	0	3
CSC 988	Concurrent and Distributed Systems	3	0	0	3
CSC 990	Grid Computing	3	0	0	3
CSC 992	Biometrics Computing	3	0	0	3

**Third and Fourth Semesters**

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>U</b>
CSC 997	M.Phil. Thesis	0	0	36	12

**Ph.D. (COMPUTER SCIENCE)****First Semester, First Year**

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>U</b>
CSC 911	Advanced Communication and Networks	0	0	0	2
CSC 921	Advanced Research Methodology	0	0	0	2
CSC 915	Non Thesis Seminar 1 /NTS 11	0	0	0	2

**Ph.D. (COMPUTER SCIENCE)****Second Semester, First Year**

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>U</b>
CSC 922	Advanced System Analysis and Design	0	0	0	2
CSC 914	Seminar Presentation	0	0	0	2
CSC 915	Non Thesis Seminar 1 /NTS 11	0	0	0	2
CSC999	Ph.D. Thesis	0	0	36	6

**SYNOPSIS OF M.Phil / Ph.D COMPUTER SCIENCE (M.Phil/Ph.D) COURSES OFFERED IN THE DEPARTMENT OF COMPUTER SCIENCE:**

## **COURSE STRUCTURE**

### **M.Phil / Ph.D. (COMPUTER SCIENCE)**

Candidates are expected to take at least three courses each semester from the available list of courses. However, Special Topics in Computing Science and Research Methodology are compulsory courses for all candidates.

#### **First Semester**

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>U</b>
CSC 981	Special Topics in Computing	3	0	0	3
CSC 983	Research Methodology Elective	3	0	0	3
		3	0	0	3
Total			9		
CSC 985	Electives	3	0	3	3
	Advanced Database Systems				
CSC 987	High Performance Architectures	3	0	3	3
CSC 989	Communications and Networks	3	0	3	3
CSC 991	Machine Learning	3	0	3	3
CSC 997	M. Phil. Research Project	0	0	36	12

#### **Second Semester**

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>U</b>
CSC 982	Computer and Network Security	3	0	3	3
CSC 984	Mobile and Adaptive Systems	3	0	3	3
Elective		3	0	0	3
Electives					
CSC 986	e-Systems	3	0	0	3
CSC 988	Concurrent and Distributed Systems	3	0	0	3
CSC 990	Grid Computing	3	0	0	3
CSC 992	Biometrics Computing	3	0	0	3

### Third and Fourth Semesters

Course Code	Course Title	L	T	P	U
CSC 997C	M.Phil. Research Project	0	0	36	12

### Ph.D. (COMPUTER SCIENCE)

**For Students with CGPA of 4.5- 5.0 on a 5 point Grade**

Course Code	Course Title	L	T	P	U
CSC998C	Ph.D. Research Project	0	0	36	12

### COURSE SYNOPSES

#### M.Phil. COMPUTER SCIENCE

##### **CSC 981-Special topics in computing (3 Units)**

A study of the current trends and popular recent research in computer science will be the focus of this course. Apart from seminars to be given by lecturers, students are expected to do substantial readings on their own.

##### **CSC 982-Computer and network security (3 Units)**

Introduction, threats, risks and vulnerabilities, data security policies/administration, security procedural control, security models, designing secure systems, effects of hardware on security, operating systems security, network security, database security, programming language security, cryptography, distributed systems security, and information systems security.

##### **CSC983-Research methodology (3 Units)**

Introduction to research methods (experimental design and analysis, modelling and simulation and the likes), including research paradigms and methodologies across computer science, research question formulation, design of research approach, literature search and presentation of related work, analysis of results, verbal and written presentation skills, and research ethics. Students prepare and defend a thesis proposal or project proposal in an area of their choice.

##### **CSC984-Mobile and adaptive systems (3 Units)**

Introduction and overview, properties of wireless; PANS, LANS and WANS: Ad-hoc and infrastructure networks, physical constraints and limitations (transmission and reception),

Network structures and architectures, including hand-off and mobility support at the physical/link level, Example technologies at the physical/link layers: PANS - Bluetooth, LANs - IEEE802.11, Hiper LAN, Basic GSM and GPRS network structures, protocol architectures, next generation wireless overview including UMTS, IMT-2000 and W-CDMA, Mobile IP, problems with routing, quality of service and security, mobile systems and power management issues, file systems. Adaptive and re configurable systems, Mobile multimedia and its relationship to proxying, Context sensitive applications, Ubiquitous computing, Pervasive computing and Ambient networking, overlay networks and vertical hand-offs, programmable networking and applications for mobile systems, code mobility and control/signaling.

### **CSC985-Advanced database systems (3 Units)**

A brief introduction to database concepts and the relational database model, Design concepts and implementation, entity relationship modelling, Normalization of database tables and structured query language, Database design and implementation. Transaction management and concurrency control, Distributed database management systems, Database privacy, security, failure and recovery. Object oriented databases, client/server systems, the data warehouse, databases in electronic commerce, web database development and database administration.

### **CSC986-e-Systems (3 Units)**

Introduction to E-Systems, the sociology and psychology of electronic commerce, Theories of online presence and cooperation, a guide to e commerce and knowledge commerce in general, Web architecture, Data interchange, Usability, Electronic payments, Mass personalization and the virtual customer.

### **CSC987-High performance architectures (3 Units)**

Fundamentals of computer systems, instruction set principles. instruction-level parallelism and its dynamic exploitation, exploiting instruction-level parallelism with software, memory hierarchy design, multiprocessor and thread-level parallelism, storage systems, interconnection networks and clusters, basic and intermediate concepts of pipelining, a survey of RISC architectures for desktop, server and embedded systems.

### **CSC988-Concurrent and distributed systems (3 Units)**

Process and thread management: basic process model, scheduling, critical sections and synchronization, mutual exclusion, Concurrency: modelling concurrent activity starting with Java threads, forms of communications, architectures, means of communications: shared

memory, direct communication between process, security threats, case study Unix (fork processes, communication using signals, pipes, sockets, shared memory; distributed systems: client server model, naming and binding, remote procedure call general protection and security; Java remote method invocation.

### **CSC989-Communications and networks (3 Units)**

Channels and channel capacity, introduction to information theory, sharing network resources telecommunications history, circuit switching and packet switching, multiplexing, FDM, TDM, statistical multiplexing, virtual circuits and datagrams, advantages and disadvantages, Sharing the medium Aloha, CSMA (persistent and non-persistent), CSMA-CD, token passing, CDMA, Wireless LANS and simple performance analysis, Dealing with errors: errors, coding and redundancy, hamming theory and codes, CRCs, ARQ protocols, selective retransmission and flow control, Internetworking and the internet: ISPS, datagram forwarding, the DNS, IPv4, addressing and forwarding, encapsulation and address resolution, TCP and UDP, Ports and Congestion controls, Example applications, Modelling data networks: services and protocols, layered architectures, the OSI 7-layer model, Introduction to queue theory, physical media, LANS and bridging. WANS and Point-to-Point links, routing, addressing and routing in the internet, end-to-end communication in the internet and application protocols.

### **CSC990-Grid computing (3 Units)**

The meta computing problem: forerunner to the grid. Exploring the convergence of exploitation of high-speed networks, exploitation of architectural affinity, work on coupled Multiphysics problems. Grid computing: a persistent meta computing environment. Digital certificates as a persistent and scalable form of authorization, visualization of resources, hiding of complexity of meta computing environment from user. Role of middleware in grid computing. Necessity for abstractions in a heterogeneous environment, differing operating systems, resource management systems, programming languages. Interoperability achieved via tiered middleware architectures. Abstract modelling approach to middleware problems.

### **CSC991-Machine learning (3 Units)**

Introduction, concept learning and general-to-specific ordering, decision tree learning, supervised learning, artificial neural networks, evaluating hypotheses, Bayesian learning, instance-based learning, statistical learning methods, memory based learning, transformation based learning, inductive logic programming, support vector machine unsupervised learning, temporal difference learning, reinforcement learning, Explanation based learning.

### **CSC992-Biometrics computing (3 Units)**

Introduction to biometric process, biometric parameters, different biometric system architecture, fingerprint based biometrics, face recognition systems, iris based biometrics, speaker recognition system using voice, retina scan based biometrics, hand scan based biometrics, comparison of different biometrics verification techniques, multimodal biometrics, biometric watermarking.

### **CSC997-M.Phil. research project (12 Units)**

An independent investigation of an appropriate computing research problem is to be chosen by the student and approved by the Department. Each student works under the direction of a supervisor or group of supervisors. Before registering, the student must submit a written proposal to the supervisor(s) to review. The proposal should give a brief outline of the thesis, estimated schedule of completion, and computing resources needed. Each candidate is required to prepare a thesis, which represents the report of study, in an effectively organized and well-written form. The candidate is required to present at least two seminar papers before the final oral presentation. The thesis is examined in a viva voce.

## **Ph.D COMPUTER SCIENCE**

### **CSC998-Ph.D. research project**

An independent investigation of an appropriate computing research problem is to be chosen by the student and approved by the Department. Each student works under the direction of a supervisor or group of supervisors: Before registering, the student must submit a written proposal to the supervisor(s) to review. The proposal should give a brief outline of the thesis, estimated schedule of completion, and computing resources needed. Each candidate is required to prepare a thesis, which represents the report of study, in an effectively organized and well-written form. The candidate is required to present at least two seminar papers before the final oral presentation. The thesis is examined in a viva voce. The following are the major areas of research for which the facility is available to the members of staff in the Department: soft computing; machine intelligence; database systems; software engineering; computer architecture; operating systems; networking and distributed systems; network and computer security; computer graphics; multimedia systems; data mining and warehousing among others. Candidates applying to the Ph.D. in Computer Science programme should consider these areas.

### **34.0 COLLEGE OF ARTS, SOCIAL AND MANAGEMENT SCIENCES (CASMAS)**

#### **34.1 DEPARTMENT OF ACCOUNTING, FINANCE AND TAXATION**

##### **PHILOSOPHY**

The philosophy of the Postgraduate degrees – PGD, M.Sc. and M.Phil/PhD Accounting and Finance programmes is to provide graduate education and training which develops and deepens the spirit of enquiry and responsibility in the graduate students, to take on research, teaching and administrative responsibilities, in public and private sectors of the national and global economies.

##### **Objectives**

The Postgraduate degrees in Accounting and Finance programmes are designed to provide specialist education and training for researchers, in tertiary institution as well as for high level business managers. It requires general familiarity with critical knowledge of the various segments in the accounting and finance disciplines. A successful completion of the doctoral programme requires an ability to make full and intensive use of relevant concepts, tools, modern accounting and finance techniques and an ability to communicate these to other people. In other words, the doctoral graduate should be able to impart his or her knowledge to others as colleagues, subordinates or students.

#### **34.2. ACCOUNTING PGD CURRICULUM**

##### **POST GRADUATE DIPLOMA IN ACCOUNTING COURSES**

S/No.	Course Code	Course Title	Units
1	ACC 701	Principles of Accounting	2
2	ACC 703	Principles of Taxation	2
3	SMS 705	Quantitative Techniques	2
4	ECO 701	Principles of Micro Economics	2
5	ECO 708	Principles of Macro Economics	2

6	ACC 707	Cost Accounting	2
7	ACC 704	Management Accounting	2
8	ACC 709	Auditing Principles & Practice	2
9	SMS 702	Research Methodology	2
10	BUS 202	Principles of Management	2
11	FIN 702	Principles of Finance	2
12	FIN 704	Public Finance	2
13	ACC 706	Public Sector Accounting	2
14	ACC 708	Research Project	4

### **34.3. PGD ACCOUNTING COURSE DESCRIPTION**

#### **ACC 701 Principles of Accounting**

Accounting and Auditing, the basic principles and concepts of accounting in the private business enterprises: book-keeping process. Elementary theory of accounts: basic principles of financial, cost and management accounting, basic theory of auditing, internal and external.

#### **ACC 703 Principles of Taxation**

Basic concepts in taxation: elements of tax, formal and effective incidence of tax, tax shifting, direct and indirect taxes, tax shifting welfare effect of taxation, criteria to be observed in choosing an equitable tax. Distribution of the burden of taxation.

The income tax laws, including the Income Tax Management Act 1961 (repealed), the Companies Income Tax Act 1979 (now CAP C21 LFN 2004 as amended), the Petroleum Profits Tax Act 1959 (now CAP P 13 LFN 2004 as amended), the Income Tax (Forces and other persons) (Special Provisions) Act 1972(repealed). The Personal Income Tax Act CAP P 8 has replaced it.

Computation of income tax: ascertainment of income, assessable income, total assessable income (including computation and treatment of capital allowances and losses), chargeable income and tax payable.

### **SMS 702 Research Methodology**

The course is designed to improve the ability of students to carry out empirical research and to evaluate published research. Topics covered include the nature of scientific research, theory building, and concept definition, formulating hypotheses, validity and reliability, measurement and scaling methods, concepts, and problems in data collection and sampling, criteria for causal inferences, studies and control groups, considerable time will be devoted to report writing including editing, foot noting, etc.

### **SMS 705 Quantitative Techniques**

The nature and objectives of statistics, frequency distributions, measures dispersion, essentials of probability, statistical distribution. Basic sampling techniques, decision theory, index numbers, time series, correlation and regression analysis. Introduction to Linear Programming. Practice in the use of Computer in problem solutions.

### **ECO 701 Principles of Micro Economics**

Economics system and organization, demand and supply, individual consumer behaviour, the utility and indifference curve approaches. Market classifications, the principles of production, the firm and perfect competition, pure monopoly, monopolistic and oligopolistic competitions, pricing and employment of resources.

### **ACC 706 Public Sector Accounting**

Introduction to public sector accounting – distinction between public private sectors, basic accounting for not-for-profit (NFP), classification of NFP, basic characteristics of governmental accounting. Structures of governmental accounting in Nigeria. The treasury audit department, consolidated revenue fund, capital and development fund, fund accounting system and standardized uniforms for transactions.

Decision making and planning and control of public fund – application of costing methods, budgeting procedures, the use of audit department accounting for local government, educational and health institutions.

Planning, Programming and Budgeting System (PPBS). Recent developments and issues, the public sector – implication of Nigeria's membership in ECOWAS, effect of restructuring public sector etc.

### **EC0 708 Principles of Macro Economics**

The emphasis in this course is on the macro, or aggregative aspect of the economy. Topics include National Income Account; the Determination of the Level of Aggregate Output, Employment and Prices; the Monetary System: Monetary and Fiscal Policies; Economic Growth; and International Monetary Economics.

### **ACC 707 Cost Accounting**

Nature, scope and functions of cost and management accounting. The principle underlying the preparation and presentation of cost accounts for various types of businesses. The elements of costs. Cost accounting for materials, labour, overheads and equipment. The different meanings of costs, viz: historical, marginal, average, etc.

Costing methods: job and process cost accounting, elements of marginal costing and budgetary control, double entry accounts for cost control. Nature and use of accounting ratios; some current problems and issues.

### **ACC 704 Management Accounting**

Introduction to the nature and functions of Management Accounting. The dual purpose of management accounting. The dual purpose of planning and control. Cost for decision making, marginal costing its use, break – even analysis, cost – estimations and separation techniques, full cost, sunk cost and concept of opportunity cost. Short terms decision and accounting information – dropping a segment, make or buy decisions, joint products, special order, factors in limited supply optimal for product mix decisions.

Budgeting – preparations of operational or functional budget, such as sales budget, purchases budget, expenses budget, such as sales budget, master budget

– cash and income statement. Capital budgeting decisions and method (payback period, budgeting decisions, NPV and IPR), capital budgeting when projects are divisible and non-divisible, mutually exclusive and non-mutually exclusive.

### **FIN 702 Principles of Finance**

This provides a systematic and vigorous examination of the theoretical framework of financial/investment management analysis. Main topics include: The economic theory of choice: investment decision and appraisal techniques, financial requirements planning, working capital management, financial ratio, dividend decision, cash budgeting, fixed assets and equity management funds flow statement, and emphasis on financial markets. An introduction of flow of funds analysis and the concept of cash flow as applied to the firm.

### **ACC 709 Auditing Principles and Practice**

The nature and purpose of an Audit. The role of internal and external audits, reporting responsibilities, appointment dismissal and resignation of auditors. The concept of “true and fair view, independence of auditors”. Relationship of auditors to directors, shareholders and other financial statements users.

Auditing planning – initial review of accounting system, evaluation of internal control systems and procedures, - vouching of accounts, verification of assets, sampling technique, flow charting, stock-taking procedures, letter of representation. The audit Report – statutory requirements for audit report (Companies Act, 1990). Types of audit reports. Professional requirements, duties and power under statute and case law independence and ethical consideration.

### **FIN 704 Public Finance**

Federalism and public finance, direct and indirect taxation in Nigeria, operation of federal and state finance fiscal system, public debt policy, role of public corporations and marketing

boards, role of central bank, commercial and development banks; The budgeting cycle and public expenditure control, budgeting process.

### **BUS 702 Principles of Management**

Principles of organization; classical organization theory human relations school, informal organization; bureaucracy, politics and administration relations; personnel administration, administrative decision-making, control and accountability; organization of job design analysis and staffing.

## **35.0 MSC ACCOUNTING CURRICULUM**

### **35.1. MSc ACCOUNTING (YEAR 1 FIRST SEMESTER)**

COURSE CODE	COURSE TITLE	UNITS
ACC 821	FINANCIAL ACCOUNTING THEORY	3
ECO 829	ECONOMIC THEORY	3
ACC 831	QUANTITATIVE TECHNIQUES	3
FIN 829	CORPORATE FINANCE	3
ACC 812	OIL & GAS ACCOUNTING	3
ACC 819	TAXATION, THEORY AND PRACTICE	3
		18

### **35.2. MSc ACCOUNTING (YEAR 1 SECOND SEMESTER)**

COURSE CODE	COURSE TITLE	UNITS
ACC 818	FORENSIC ACCOUNTING	3
ACC 811	MANAGEMENT INFORMATION SYSTEM	3
FIN 830	PORTFOLIO THEORY & INVESTMENT ANALYSIS	3

ACC 822	MANAGEMENT ACCOUNTING THEORY	3
ACC 815	RESEARCH METHODOLOGY	3
		15

### **35.3. MSC ACCOUNTING (YEAR 2 FIRST SEMESTER)**

COURSE CODE	COURSE TITLE	UNITS
ACC 823	AUDITING THEORY	3
ACC 826	SEMINAR IN ACCOUNTING	3
ACC 825	PUBLIC SECTOR ACCOUNTING	3
ACC 810	INTERNATIONAL ACCOUNTING	3
		12

### **35.4. MSC ACCOUNTING (YEAR 2 SECOND SEMESTER)**

COURSE CODE	COURSE TITLE	UNITS
ACC 830	RESEARCH THESIS	6
		6

### **35.5. MSC ACCOUNTING COURSE DESCRIPTION:**

#### **ACC 810      International Accounting**

The Course is designed for students interested in accounting and financial control of international operations. It involves preparation, transition and analysis of financial statements for companies that have branches of foreign multinational companies.

#### **ACC 811      Management Information System**

The course examines the role of information technology, and its management, in supporting an organization's (internally – and externally – focused) operations and strategies. Particular attention is given to issues associated with funding and building of business and technology architectures to enable efficient, effective, and adaptable operational, tactical and strategic actions. The course will help understand what IT components are available and how you can utilize appropriate IT principles for success. You will learn the terminology used in the field of IT and how IT principles can apply to your business. The course stresses the competitive advantage of using IT and the return on investment that you can see. It focuses on the basic principles of information technology hardware and software components, database technology, telecommunications and networking, e-commerce and e-business, Enterprise Resource Planning (ERP), Decision Support Systems (DSS), Artificial Intelligence (AI), and Expert Systems (ES), system development and implementation, and the ethical and societal issues involved in IT.

#### **ACC 815      Research Methodology**

**Introduction** – The Domain of scientific research; Research design and strategy sampling; Activities of Research department model construction; Data-collecting strategies; The questionnaire; the Interview motivation research; Measurement and analysis of Data; Report writing; Research in Nigeria; Ethics in Management; Business and social responsibility; Research presentation; Guest lectures on selected research topics.

### **35.6.    MSC ACCOUNTING COURSE DESCRIPTION:**

#### **ACC 813      International Accounting**

The Course is designed for students interested in accounting and financial control of international operations. It involves preparation, transition and analysis of financial statements for companies that have branches of foreign multinational companies.

#### **ACC 812      Management Information System**

The course examines the role of information technology, and its management, in supporting an organization's (internally – and externally – focused) operations and strategies. Particular

attention is giving to issues associated with funding and building of business and technology architectures to enable efficient, effective, and adaptable operational, tactical and strategic actions. The course will help understand what IT components are available and how you can utilize appropriate IT principles for success. You will learn the terminology used in the field of IT and how IT principles can apply to your business. The course stresses the competitive advantage of using IT and the return on investment that you can see. It focuses on the basic principles of information technology hardware and software components, database technology, telecommunications and networking, e-commerce and e-business, Enterprise Resource Planning (ERP), Decision Support Systems (DSS), Artificial Intelligence (AI), and Expert Systems (ES), system development and implementation, and the ethical and societal issues involved in IT.

### **ACC 826      Research Methodology**

Introduction – The Domain of scientific research; Research design and strategy sampling; Activities of Research department model construction; Data-collecting strategies; The questionnaire; the Interview motivation research; Measurement and analysis of Data; Report writing; Research in Nigeria; Ethics in Management; Business and social responsibility; Research presentation; Guest lectures on selected research topics.

### **ACC 819      Taxation Theory and Practice**

The principles, practice and theory of the Nigerian system of income tax, surtax, corporation tax and capital gains tax. Computation and assessments in relation to individuals, partnerships and limited companies. Procedures and practice relative to claims and appeals. Nigerian taxation in relation to foreign taxation.

### **ACC 821      Financial Accounting Theory**

This course aims at reviewing the basic accounting procedures and it has three phases. The first phase includes the rationale of financial accounting and the economic foundations of accounting generally. Elements of the history of accounting; Working papers and the interpretations of financial statements, including the analysis of working capital and statements of the sources and application of funds and cash flows; generally accepted accounting

principles and net income concepts, including the valuation of stock and work-in-progress. The theory and techniques relating to balance sheet categories including cash, debtors, stock, investments, tangible and intangible fixed assets, liabilities and reserves, elements of the impact of price-level changes on financial statements.

The second phase of the course is on critical study of the general body of interpretation of financial accounting statements with particular emphasis on their (structural) coherence, their interpretational (semantic) validity and their behavioral implications. The development of Accounting Theory: Fundamental Accounting postulate: the accounting concepts in the light of today's market conditions. Accounting conventions: the objectives of accounting, generally accepted accounting principles (GAAP), controversial accounting concepts; etc. Topics also include approaches to the formulation of theory in accounting, nature of the objectives of financial accounting, history and development of accounting.

The third phases of the course introduces students to contemporary proposals for expounding the scope of corporate reports (human resource accounting, accounting for cost of capital, cash flow accounting, segment reporting, publication of forecasts, corporate social accounting etc. The objectives and theory of income determinants in accounting study of different methods of income measurement and their impact on financial reporting; an examination of established practices of income reporting and their degree of satisfaction on the part of Accounting information, application of theory and practice and research on both theory and practice. The second aspect has a high emphasis on the application of practice and research on both theory and practice. Examination of contemporary literature in selected topics of current interest to the accounting profession. Attention is also given to the political environment both internal and external under which financial statements are prepared and published.

## **ACC 822      Management Accounting Theory**

This course is divided into three parts. Part one of the course focuses on the nature, scope and purpose of costing; theory of costing; element of costing; material, labour and over-head (in outline only); cost allocation, apportionment; methods of costing, Marginal costing, costing ascertainment; cost-profit-volume analysis, breakeven analysis, standard costing, profit contribution, mix and yield variance; interpretation of variance and their relationship.

Part two focuses on contemporary issues in management accounting. Topics study will includes the role of management accounting in an organization, the global impact of management accounting, the role of transfer pricing as a management accounting tool, the changes that have taken place in managerial accounting in recent years, the transition from cost management to cost accounting, the scientific management accounting movement, balanced score card as an effective management tools, and the ABC of management accounting system.

Part three focuses on the development and use of accounting information for planning, Coordinating, and controlling work in varying situations. Topics include cost accounting as an internal information plan needed for managerial decisions, cost accounting measurement, budgeting and analysis of variance, cost behaviour and cost estimation; responsibility accounting and the contribution approach; cost allocation problem s and relevant cost analysis for problem solving; pricing in product – combinations; cost-volume-profit relationships; cost approaches to inventory control; information demands by advanced by manufacturing techniques; advanced capital budget problems; standard and flexible budget, behavioral problems of budgeting, etc. Transfer pricing and performance evaluation in divisionalized concerns and computer applications in management accounting will also be studied. Emphasis will be placed on the application of mathematical and statistical techniques in analyzing and presenting accounting information for managerial decisions.

### **ACC 823      Auditing Theory**

This course focuses on the description of some of the major contemporary issues in auditing theory and practice. Reference will be made extensively to Auditing standards applicable in Nigeria, the United Kingdom and the United States of America and as published by the International Federation of Accountants. Topics include, objectives of auditing (the share holders or the general public); ethical issues relating to fees, advertising, confidentiality, independence, objectivity, etc; application of statistical techniques in Auditing; auditors' responsibility under Securities and Exchange Commission and Stock Exchange Regulations, audit of computer-based systems; change of auditors; the increasing use of audit committees; management auditing; audit of social accounts and service organization, including financial institutions.

### **ACC 824      Quantitative Techniques**

This course is designed to deepen students understanding of statistics and its applications. Areas covered include data gathering, classification and tabulation, diagrammatic and graphical presentation, measures of central tendency, describing distribution, and descriptive statistics. Other areas include basic sampling technique, decision theory, number, time series, correlation and regression analysis.

### **ACC 825      Public Sector Accounting**

Public Sector Accounting will look at the special problems which arise in the planning and control of financial resources in public sector organizations, government companies, boards and corporations (utilities). Issues examined include the role of public enterprise procedures for making investments and pricing decisions, and the constraints on these decisions; government budgeting and accounting systems; relationships between public enterprise and government; and the factors which tend to impede performance in this sector. The rationale, problems and prospects of privatization and commercialization of government business will also be considered. International comparisons will be drawn where relevant. Other topics covered will include above and below the line items, financial transactions recording in public sector, public accountability and preparation of financial statement, roles of Accountant General, Auditor-General and Public Accounts Committee/National Assembly in the process of public accountability and roles of IPSAC and INTOSAI.

### **ACC 826      Seminar in Accounting**

Selected and approved seminar topics in various areas in accounting will be encouraged. Current thinking and development in accounting will be given prime attention.

### **ECN 829      Economic Theory**

See Department of Economics brochure.

### **ACC 830      Thesis**

Students are expected to select topics from core accounting courses like financial, cost, management accounting, international, human resources, oil and gas, environmental accounting and accounting ethics to mention but a few. Proposals are defended and title approved before a student proceeds to data collection.

### **35.7. COMPULSORY ELECTIVE COURSES FOR M.Sc. ACCOUNTING**

#### **ACC 812: Oil and Gas Accounting**

This course aims at introducing the students to petroleum econometrics and the petroleum industry as well as Operations of the Upstream Sector of the Petroleum Industry, Operations of the Downstream Sector of the Petroleum Industry, Organizations of Companies in the Petroleum Industry, Accounting Principles and Regulatory framework of Oil and gas Accounting, Critique of Accounting Standards on petroleum Accounting. Accounting for Exploration, Drilling and Development Costs, Accounting for Oil and Gas Marketing and Sales Activities, Accounting for Joint Venture Operations, Accounting for Petrochemical Operations, Accounting for International Operations, Non Value and value-based Disclosures about Oil and Gas activities, Design of oil and Gas Accounting Systems for Upstream and down Stream operations and leading issues in Petroleum Accounting. Other topics include royalties, petroleum task and financial control activities in the oil and gas industry

#### **ACC 818      Forensic Accounting**

The course introduces students to recent developments especially in area of expanded and specialized auditing and investigation functions. Meaning, Scope, development and relevance and comparison of forensic accounting with traditional auditing. Forensic accounting with traditional auditing. Forensic Accounting functions and services and auditing skills. Forensic and Investigative Accounting, Economic crimes in audit and financial statements, Corporate fraud, White-collar crime in government organizations, Forensic auditing, Fraud prevention plans, Forensic accounting and law, Litigation support services, The role of Forensic accountant, Professional Skills and Standards, Documentations and Reporting etc. Expert opinion/Expert Witness, case study presentation project. The projects will involve analyzing real-world “case” information as well as Corporate and business records to determine if fraud has occurred. Students will mimic Investigative process found in practice by conducting analytical reviews. Soliciting information from clients, and reporting suspicious activities for

a fictitious client company. Finally, the students will testify to their findings in a mock court scenario.

### **FIN 830 Investment Analyses and Portfolio Management**

The study covers portfolio selection as a problem of constrained utility maximization under conditions of uncertainty; Discussion of the different markets, along empirical evidence for validity of the theory; activities involved in making selection among alternative financial assets from the viewpoints of individuals and institutional investors; implications of the efficient market theory for the profitability of alternative investment; valuation of financial statements and analysis.

The empirical evidence for various mean variance models of assets for evaluating portfolio performance are emphasized.

## **36 College Of Arts, Social and Management Sciences – Accounting Ph.D. Curriculum**

### **36.1. PROGRAMME STRUCTURE M.Phil/Ph.D. ACCOUNTING:**

The course commenced in the second semester of 2019/2020 academic session.

### **PHILOSOPHY**

The philosophy of the M.Phil/PhD Accounting programme is to provide graduate education and training which develops and deepens the spirit of enquiry and responsibility in the graduate students, to take on research, teaching and administrative responsibilities, in public and private sectors of the nation and global economies.

### **Objectives**

The M.Phil/PhD Accounting programme is designed to provide specialist education and training for researchers, in tertiary institution as well as for high level business managers. It requires general familiarity with critical knowledge of the various segments in the accounting discipline. A successful completion of the doctoral programme requires an ability to make full and intensive use of relevant concepts, tools, modern accounting techniques and an ability to

communicate these to other people. In other words, the doctoral graduate should be able to impart his or her knowledge to others as colleagues, subordinates or students.

### 36.2. Course Structure

**Courses offered in the first and second semesters of each year of the Ph. D Accounting programme:**

#### **Direct Full-time Ph.D. Accounting**

##### **Course Structure**

The Ph.D programme requires a minimum of 36 credit units made up as follows:

• Six core courses (3 credits each)	18 units
• PhD Seminar	3 units
• Two courses from area of concentration (3 credits each)	6 units
• Thesis	12 units
• Total	<b>39 units</b>

<b>Core Courses</b>	<b>Credit Units</b>
ACC 911 History of Accounting Thought	3
ACC 913 Advanced Financial Accounting Theory	3
ACC 915 Advanced Management Theory	3
ACC 914 Research Methodology	3
ACC 912 Advanced Auditing Theory	3
ACC 916 Contemporary Issues in Accounting	3
ACC 921 PhD Seminar	3

##### **Elective Courses (Minimum of 2)**

ACC 917 Strategic Financial Management	3
ACC 918 Advanced Management Accounting	3
ACC 919 Public Sector Accounting	3
ACC 920 Environmental Accounting	3
<b>ACC 928 Thesis/Dissertation</b>	<b><u>12</u></b>

**Total = 39 Credit Units**

### **36.3. DESCRIPTION OF COURSES**

#### **ACC 911 History of Accounting Thought**

The nature and scope of accounting and its evolution; the accounting function and its relationship with the information systems of organizations. Accounting procedures and systems. Source documents, books of original entry and books of accounts. Double entry book-keeping systems, the trial balance, accruals, prepayments and adjustments. Provisions and reserves, classification of expenditure between capital and revenue, methods of recording accounting data-manual and mechanical; manufacturing, trader. Accounting treatment of control accounts and bank reconciliation.

#### **ACC 913 Advanced Financial Accounting Theory**

Further work on advanced company accounts including the accounts of banks and insurance companies, and the Nigerian Insurance Acts. Valuation of goodwill and company shares. Divisible profits and company dividends. Royalty and hire-purchase accounts. Consolidated and other group accounts.

Elements of mechanized accounting, including the application of computers and related systems to business accounts. Governmental, municipal and public utility accounting, with special reference to Nigerian Organisations.

Seminars on accounting systems, including business, governmental municipal and public utility accounting systems.

#### **ACC 914 Advanced Research Methodology**

Introduction to Research Methodology

Research in Social Sciences

Research in Physical and Natural Sciences

Problems of Research in Developing countries

Common errors in research

Research in Practice:

- (a) Problem identification
- (b) Literature review
- (c) Materials and Methods (Methodology)
- (d) Results (Data Analysis)

- (e) Discussions
- (f) Summary, Conclusions and Recommendations.
- (g) Report writing

### **ACC 919      Public Sector Accounting**

Basic accounting for non-profit organization; basic characteristics of government accounting; structure of governmental accounting in Nigeria; the treasury; audit department; consolidated revenue fund, capital and development fund; planning, programming and budgeting system (PPBS).

### **ACC 915      Advanced Management Theory**

Conventional and modern conceptions of management, Definition and dynamics of management theory; levels and feature of theory in management. Applications and relevance of theory in the Nigeria context. Organizational design and outline managing group processes, problems of integration and control; managing change and development. Modern issues in management theory.

### **ACC 912      Advanced Auditing Theory**

Evolution of auditing, procedures with particular reference to internal control systems, internal audit functions; sampling and statistical techniques; auditing standards and guidelines including exposure drafts; post audit review; audit of accounts of solicitors, charitable and other non-trading organizations.

### **ACC 916      Contemporary Issues in Accounting**

Discussion and articulation of recent developments in the accounting literature.

### **ACC 917      Strategic Financial Management**

The course deals with the corporate Management of the business enterprise. The first part of the course focuses on the nature and dynamics of business policy, the strategy concept, missions and objectives. The rest of the course will cover the strategic planning process, stakeholder or management, techniques for strategic appraisal, SWOT, industry and competitive analysis, portfolio analysis, development of strategic options, turn over and recovery strategies, mergers, acquisitions and divestment.

### **ACC 921      PhD Seminar**

Each seminar relates to an examination of current issues in the area of specialization in consultation with supervisor. Results of such examinations shall be presented at departmental or faculty seminars. Requirement of the doctoral seminar shall be at the recommendation of the supervisor and the approval of the departmental post graduate sub-committee.

#### **ACC 920      Environmental Accounting**

This course has the aim inculcating in the students the idea of cost and control processes of the effects productive activities on the environment.

#### **ACC 918      Advanced Management Accounting**

This course aims at introducing students to the advanced theories and practice of management accounting in the decision-making process.

#### **M.Phil./Ph.D. Course Structure:**

Where a candidate is not qualified for direct admission into PhD, it is deemed necessary and appropriate for the candidate to go through M.Phil and take the following courses not in excess of eighteen (18) credits units:

	<b>Credit Units</b>
ACC 861 Financial Accounting Theory	3
ACC 862 Management Accounting Theory	3
ACC 864 Business Policy & Strategic Management	3
FIN 867 International Business Finance	3
FIN 866 Public Finance	3
ACC 868 Accounting Standards	3

Thus, M.Phil./Ph.D students take a total of 57 Credit Units.

#### **YEAR ONE FIRST SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>ACC 911</b>	History of Accounting Thought	<b>C</b>	<b>3</b>

<b>2.</b>	<b>ACC 913</b>	Advanced Financial Accounting Theory	<b>C</b>	<b>3</b>
<b>3.</b>	<b>ACC 915</b>	Advanced Management Theory	<b>C</b>	<b>3</b>
		<b>TOTAL</b>		<b>9</b>

#### **YEAR ONE SECOND SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>ACC 912</b>	Advanced Auditing Theory	<b>C</b>	<b>3</b>
<b>2.</b>	<b>ACC 914</b>	Research Methodology	<b>C</b>	<b>3</b>
<b>3.</b>	<b>ACC 916</b>	Contemporary Issues in Accounting	<b>C</b>	<b>3</b>
		<b>TOTAL</b>		<b>9</b>

#### **YEAR TWO FIRST SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>ACC 917/919</b>	Strategic Financial Management / Public Sector Accounting	<b>C</b>	<b>3</b>
<b>2.</b>	<b>ACC 921</b>	Ph. D Seminar	<b>C</b>	<b>3</b>
		<b>TOTAL</b>		<b>9</b>

#### **YEAR TWO SECOND SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>ACC 918/920</b>	Advanced Management Accounting/ Environmental Accounting	<b>C</b>	<b>3</b>
		<b>TOTAL</b>		<b>3</b>

#### **YEAR THREE FIRST SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>ACC 928</b>	Thesis	<b>C</b>	<b>6</b>
		<b>TOTAL</b>		<b>6</b>

### **YEAR THREE SECOND SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>ACC 928</b>	<b>Thesis</b>	<b>C</b>	<b>6</b>
		<b>TOTAL</b>		<b>6</b>

### **36.7 DESCRIPTION OF M.Phil COURSES**

#### **ACC 861: Financial Accounting Theory**

A review of basic accounting procedures, including the rationale of financial accounting and the economic foundations of accounting generally. Elements of the history of accounting. Working papers and the interpretations of financial statements, including the analysis of working capital and statements of the sources and application of funds and cash flows. Generally accepted accounting principles and net income concepts, including the valuation of stock and work-in-progress. The theory and techniques relating to balance sheet categories including cash, debtors, stock, investments, tangible and intangible fixed assets, liabilities and reserves, elements of the impact of price-level changes on financial statements.

#### **ACC 862: Management Accounting Theory**

Nature, scope and purpose of costing. Theory of costing, elements of costing, material, labour and over-head (in outline only); cost allocation, apportionment; methods of costing. Marginal costing, costing ascertainment cost/profit/volume analysis break even analysis. Standard costing, profit contribution, mix and yield variances; interpretation of variances and their relationships.

#### **ACC 864: Business Policy & Strategic Management**

The course deals with the corporate Management of the business enterprise. The first part of the course focuses on the nature and dynamics of business policy, the strategy concept, missions and objectives. The rest of the course will cover the strategic Planning process, stakeholder or management, techniques for strategic appraisal, SWOT, industry and competitive analysis, portfolio analysis, development of strategic options, turn over and recovery strategies, mergers, acquisitions and divestment.

**FIN 867: International Business Finance**

Course content focuses on the government in which the international financial manager operates. You will study the risks of doing business overseas and the tools available to minimize those risks. Foreign exchange risks, political risk, working capital management, long-term investments and financial and accounting and control are examined within this context.

**FIN 866: Public Finance**

The nature and scope of public finance; comparative models of financial management; profit maximization, welfare maximization, value for money and accountability models. Objectives and functions of the government.

Organization of government for financial management; the functions and responsibilities of the Chief Executive and Accounting Officer, the Accountant General, the Revenue Collector, the Board of Survey, the Board of Inquiry, the Treasury Cash Officer/Sub-Accountant, the Store Officer, etc.

Financial and supplies; principles of sharing revenue among the tiers of government in a federal system – the Nigerian experiences; sources of revenue and their relative importance, the politics of revenue allocation in Nigeria.

The allocated and unallocated stores; the rationale for one establishment of allocated stores. The Nigerian public debt and its management. Funded and unfunded methods of debt payments and provision for debt repayment.

**ACC 868: Accounting Standards**

The aim of this course is to inculcate in the students the understanding of major accounting standards bodies of the world including their history, methods and the standards they set. The Nigerian Accounting Standards Board (NASB) and the Statements of Accounting Standards (SASs); the Financial Accounting Standards Board (FASB-USA) and the Financial Accounting Standards (FASs), the Accounting Standard Board (ASB-UK) and the Statements of Standard Accounting Practice (SSAPs); and the International Accounting Standards Board (ISAB) and International Financial Reporting Standards.

### **36.8. M.Phil./Ph.D. FINANCE COURSES**

#### **Philosophy**

To broaden and deepen the intellectual capacity of students and strengthen their research capability to prepare them for academic positions in universities and other tertiary institutions as well as management positions in both public and private sector.

#### **WHAT YEAR DID IT COMMENCE**

#### **Aims and Objectives**

**The University's M.Phil./Ph. D programme in Finance seeks to:**

Develop prospective academics and researchers and financial analysts by broadening the intellectual and research capabilities of the candidates.

#### **36.9. Course structure:**

The M.Phil/PhD programme requires a minimum of 36 credit units made up of 15 credit units of taught core courses, 3 units of elective, 6 credits units of Seminar and 12 units for thesis made up as follows for Ph.D direct:

- |  |          |
|--|----------|
| • Five courses (3 credits each)                              | 15 units |
| • One course and two seminars in the areas of specialization | 9 units  |
| • Thesis   | 12 units |
| • Total  | 36 units |

And a maximum 54 credit units made up of 27 credit units of taught courses, 6 credit units of seminar and 12 units for thesis made up as follows for M.Phil/Ph.D:

- |  |          |
|--|----------|
| • Eleven courses (3 credits each)                            | 33 units |
| • One course and two seminars in the areas of specialization | 9 units  |
| • Thesis   | 12 units |
| • Total  | 54 units |

### **36.10. M.Phil. Finance courses**

#### **FIN 860: Financial Planning and Control**

The course emphasizes basic concepts and analytical tools essential for financial decision making and in understanding of the market environment in which the firm operate. Possible topics include the concepts of organizational goals and the selection and preparation of information essential to financial planning and control of firms operations such as cost estimation and analysis, cost volume profit analysis, budgeting and budgetary control, variance analysis and cost allocation.

#### **FIN 862: International Banking and Finance**

Topics covered include; overview of the global financial system, foreign exchange market, national banking and financial markets, Euro-banks and euro financing, international trade financing; international financial institutions and financial integration in ECOWAS and Africa; problems of developing countries in the international financial system and markets; reform of the international financial system; external borrowing, debt and debt servicing problems; foreign aid and foreign direct investment; Nigeria and international trading, payments and financial issues in the context of the changing global financial developments.

#### **FIN 864: Financial Institutions and Markets**

##### **FIN 861: Derivatives, Securities and Markets**

The rapid and extreme development in financial services industry demand that graduates in finance be exposed to financial innovations in recent years. The course in derivatives and markets fulfils this requirements. The course introduces the students to the concepts, types, operations and regulatory framework of financial derivatives markets. It covers traded options, futures/future contracts, forwards, swaps, derivatives exchanges and traded systems.

#### **FIN 863: Public Sector Financial Management**

This covers the procedure for estimation and control of government expenditure and the raising of revenue; estimation of expenditure, authorization of expenditure and accounting processes for planning public expenditure; efficiency of government expenditure; measurement of ‘efficiency’ of government expenditure; objective functions of government expenditure; the planning programming Budgeting system and other budgeting systems as an approach to cost

effectiveness appraisal of government expenditure. Also included are: the multi-nature of public sector- federal state and local authorities and the financial relationship between government units; fiscal federalism, local government fiancé; rates, borrowing, federal/state grants, commercial activities; the systems of federal/states grants and changes overtime; the central of local authority expenditure: current and capital, its planning and control; pricing and investment problems, accosting and financial control in public owned enterprises.

### **FIN 865: Micro and Small Business Finance**

The course covers the problem of provision of microcredit and the financial problems of small business in the economy. Topics covered include: sources, acquisition and use of capital by small businesses; financial analysis relating to income, repayment of capital and risk management, leasing and other finance alternatives, the role of small business in the economy, required government assistance, how microcredit can be effectively provided and the provision of finance by credit institutions as well as the non-financial components to make finance be productively employed.

### **FIN 867: International Business Finance**

It covers overview of the international financial system; international banking and financial market, including the foreign exchange risks and management practices by international businesses; Euro-banks and Euro-financing; financing methods in international trade; international financial management, capital budgeting, project finance, and transfer pricing by multinational corporations, foreign direct investment, multilateral investment guarantee and investment codes; intentional business operations in the context of changing global financial developments.

## **37. Ph. D FINANCE**

The PhD programme requires a minimum of 36 credit units made up of 15 credit units of taught courses, 6 credits units of Seminar and 12 units for thesis made up as follows.

- |  |          |
|--|----------|
| • Five courses (3 credits each)                              | 15 units |
| • One course and two seminars in the areas of specialization | 9 units  |
| • Thesis   | 12 units |
| • Total  | 36 units |

<b>Core Courses</b>	<b>Credit Units</b>
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Advanced Theory of Corporate Finance	3
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Advanced Portfolio Theory and Management	3
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Advanced Theory of Financial Intermediation	3
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Advanced Quantitative Decision Techniques	3
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Advanced Research Methodology	3
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**Elective Courses**

All candidates are required to take and pass the two PhD seminars and one course from one of the two areas of concentration: (B1) Finance and (B2) Banking

**(B1) FINANCE**

- Empirical Investigations in Finance	- 3 units
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- Contemporary Issues in Finance	- 3 units
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- PhD Seminar in Finance I	- 3 units
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- PhD Seminar in Finance II	- 3 units
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**(B2) BANKING**

- Empirical Investigations in Banking	- 3 units
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- Contemporary Issues in Banking	- 3 units
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- PhD Seminar in Banking I	- 3 units
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- PhD Seminar in Banking II	- 3 units
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<b>Thesis</b>	<b>12 units</b>
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**FIN 901: Advanced Quantitative Decision Techniques**

It is designed to provide students the opportunity to explore more advanced quantitative techniques for decision-making in general and research in particular. Emphasis will be on: quantitative methodologies in business, export, commerce and international business,

multivariate statistical methods, advance topics in optimizing techniques and stochastic models; application of time series, Index Number, other vital statistics to issues in business studies.

In addition, it covers techniques of mathematical programming as applied in finance-the development of an intuitive appreciation of the techniques as opposed to rigorous mathematical derivation, illustration of the application in financial analysis-to be accomplished via a computer-assessed case, analysis and/or journal articles.

### **FIN 903: Advanced Theory of Corporate Finance**

The course treats at the theoretical level the conceptual foundations of funds allocation among assets and assets classes, and analyses the effects of various corporate financial policy decisions (e.g. capital structure and dividends policies) on the value of the firm. It also includes analysis of the effects of taxes, bankrupting costs, and agency costs on these decisions. The analysis is conducted successively under the assumptions of perfect and imperfect markets, and certainty and uncertainty conditions.

In addition it covers recent literature with emphasis on mathematical techniques which have been used to solve problems in portfolio theory, multi period asset pricing models and option pricing models. Financial leverage, market efficiency and information economics, term structure models, capital market equilibrium models, corporate finance issues. Reading are drawn almost exclusively from the theoretical literature of corporate finance.

### **FIN 905: Advanced Portfolio Theory and Management**

This course provides an advanced treatment of investment portfolio theories; computer enhanced models used to provide instruction in capital asset portfolio management and technique. Advanced treatment of diversification theories and applications in asset selection, analysis, and management and risk management are extensively discussed.

### **FIN 907: Advanced Theory of Financial Intermediation**

This is a more advanced and theoretical treatment of selected topics covered at the masters degree levels. Issues are dealt with in more details, bringing in relevant empirical analysis and proffering future directions of research with seminar papers prepared and presented on specify topics.

### **FIN 909: Advanced Research Methodology**

The course utilizes advanced research techniques to explore problems in Banking and Finance. In addition, the course teaches students the use of advanced research techniques to investigate empirical issues in Banking and Finance. Some of the topics to be covered, among others include advanced research designs, qualitative and quantitative methods of research, advance measurement scale, multidimensional scaling, complex sampling approaches, meta-analysis, structural equation modelling in Banking and Finance, conjoint analysis. Specifically, the course aims to expose students to contemporary, but not common, research methods that are relevant for understanding and solving general business management problems. Students are to be exposed to scholarly works in journals and textbooks utilizing relevant advanced research techniques.

### **FIN 902: Empirical Investigations in Finance**

Market efficiency tests, term structure theory test, test of asset pricing models, test of divided policy and financial structure issues. Topics focus on statistical and methodological problems encountered in empirical research in related areas of economics and accounting.

### **FIN 904: Contemporary Issues in Finance**

This is a seminar to address emerging issues in theoretical and empirical literature in Finance.

### **FIN 906: Contemporary Issues in Banking**

This is a seminar to address emerging issues in theoretical and empirical literature in Banking

### **FIN 908: PhD Seminar in Finance I**

Candidates will be required to make a seminar presentation. Each student will be required to produce a manuscript in the usual journal format on the topic under investigation. For these candidates, a sound literature review and development of relevant mathematical models or techniques of analysis related to their research topics will be acceptable.

### **FIN 911: PhD Seminar in Finance II**

Candidates will be required to make at least two seminars presentations. The first seminar presentation is the thesis proposal if the approved proposal is completed. The second seminar presentation will emphasize the actual results of the students research work.

### **FIN 910: Empirical Investigations in Banking**

Market efficiency tests, term structure theory test, market structure, and financial structure issues. Topics focus on statistical and methodological problems encountered in empirical research in related areas of finance, economics and accounting.

### **FIN 913: PhD Seminar in Banking**

Candidates will be required to make a seminar presentation. Each student will be required to produce a manuscript in the usual journal format on the topic under investigation. For these candidates, a sound literature review and development of relevant mathematical models or techniques of analysis related to their research topics will be acceptable.

### **FIN 912: PhD Seminar in Banking II**

Candidates will be required to make at least two seminars presentations. The first seminar presentation is the thesis proposal if the approved proposal is completed. The second seminar presentation will emphasize the actual results of the students research work.

## **38. COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – FINANCE MSc Curriculum**

### **MSc FINANCE**

#### **MSc FINANCE (YEAR 1 FIRST SEMESTER)**

COURSE CODE	COURSE TITLE	UNITS
FIN 818	QUANTITATIVE TECHNIQUES	3
ECN 813	MICROECONOMIC THEORY	3
FIN 813	INTERNATIONAL TRADE AND FINANCE	3
FIN 811	CORPORATE FINANCE	3
FIN 824	MANAGEMENT OF FINANCIAL INSTITUTIONS	3
		15

**MSc FINANCE (YEAR 1 SECOND SEMESTER)**

COURSE CODE	COURSE TITLE	UNITS
ECN 812	MACROECONOMIC THEORY	3
FIN 816	REGULATION OF FINANCIAL INTERMEDIARIES	3
FIN 830	INVESTMENT ANALYSIS AND PORFOLIO THEORY	3
FIN 833	BANK LENDING AND CREDIT ADMINISTRATION	3
FIN 815	RESEARCH METHODOLOGY	3
		15

**MSc FINANCE (YEAR 2 FIRST SEMESTER)**

COURSE CODE	COURSE TITLE	UNITS
FIN 829	MSC RESEARCH SEMINAR	3
FIN 812	THEORY OF FINANCIAL INTERMEDIATION	3
FIN 839	MARKETING OF FINANCIAL SERVICES	3
FIN 823	ECONOMETRICS	3
		12

**MSc FINANCE (YEAR 2 SECOND SEMESTER)**

COURSE CODE	COURSE TITLE	UNITS
FIN 888	RESEARCH THESIS	6
		6

**EC0 812 Macro-economic Theory**

Details as in Economics programme

## **EC0 813 Micro-economic Theory**

Details as in Economics programme

## **FIN 811 Corporate Finance**

The nature of the firm and corporate objectives. Implementation of the firms' goals for choice among alternative investment projects (the capital budgeting problems), market evaluation of Property, Plant & Equipment under uncertainty and implication for capital budgeting, analysis and illustration with problems of alternative investment criteria, alternative approaches to value of the firm and the cost of capital; discussion of corporate financial problems; e.g. leasing, mergers and acquisitions, and issuance of new securities. The course treats at the theoretical level the conceptual foundations of funds allocation among assets and assets classes, and analyses the effects of various corporate financial policy decisions (e.g. capital structure and dividends policies) on the value of the firm. It also includes analysis of the effects of taxes, bankrupting costs, and agency costs on these decisions. The analysis is conducted successively under the assumptions of perfect and imperfect markets, and certainty and uncertainty conditions.

In addition it covers recent literature with emphasis on mathematical techniques which have been used to solve problems in portfolio theory, multi period asset pricing models and option pricing models. Financial leverage, market efficiency and information economics, term structure models, capital market equilibrium models, corporate finance issues. Reading are drawn almost exclusively from the theoretical literature of corporate finance.

## **FIN 813 Theory of Financial Intermediation**

The course analysis financial markets conceptually and theoretically, emphasizing the role, structure and activities of financial intermediaries. The dynamic pattern of financial flows is analysed by flow of funds, and uses/sources of funds, models of the process of financial intermediation and the theory of the banking firm. The crucial role of interest rate and structure of interest rates are analysed. Also analysed are the regulatory framework and its impact on banking operations, market structure and performance of the financial intermediation functions of the institutions.

### **FIN 814 Research Methodology**

The course is designed to train students in the skill of scientific information gathering, analysis and interpretation in dealing with problems in finance and related topics. Through reading, assignments and direct experience students are exposed to the art of problem identification and analysis, data gathering, analysis and report writing. Emphasis will be placed on the approach at every stage.

### **FIN 818 Quantitative Techniques for Financial Decisions**

This course aims at giving the students quantitative skills necessary for banking and financial decision making. The focus of the course will be more of application rather than of the theory *per se*. It covers descriptive statistics, probability and expectations, discrete and continuous distributions, and statistical decision theory, study of estimation, tests of hypotheses and confidence intervals. Time series Analysis, Index Number with applications in finance, multiple regression, including correlation analysis. Also it includes inventory, forecasting, queuing models, analysis of variance, use of computer as a tool, emphasized with application to finance.

### **FIN 839 Marketing of Financial Services**

The course covers the nature, characteristics and consequences of financial services, and consequently, the need for products to be marketed in a special way. It is to enable students to skillfully apply marketing concepts, functions, strategies and techniques, for efficient provision of banking financial services. It also requires background knowledge of banking theory and practice for effective application of marketing principles to enhance financial services delivery at profit.

### **FIN 830 Investment Analyses and Portfolio Management**

The study covers portfolio selection as a problem of constrained utility maximization under conditions of uncertainty; Discussion of the different markets, along empirical evidence for validity of the theory; activities involved in making selection among alternative financial assets from the viewpoints of individuals and institutional investors; implications of the efficient market theory for the profitability of alternative investment; valuation of financial statements and analysis. The empirical evidence for various mean variance models of assets for evaluating portfolio performance are emphasized. This course provides an advanced treatment of investment portfolio theories; computer enhanced models used to provide instruction in capital

asset portfolio management and technique. Advanced treatment of diversification theories and applications in asset selection, analysis, and management and risk management are extensively discussed.

### **FIN 823 Econometrics**

Topics to be covered include: the study of the specification of econometric models in economics and finance theory, stochastic disturbances, and the link between conceptual variables and observable economic data are combined. Other topics include: estimation of single equation – linear; non-linear models by least squares (OLS) and other methods and estimation of time-series models and simultaneous equation models. Particular attention is given to specifications of problems and errors, and the application of the various tools to aid analysis in finance.

### **FIN 816 Regulations of Financial Institutions**

An advanced treatment of fiscal and monetary policy issues; in respect of economic stabilization measures. The instruments and targets of fiscal and monetary policies and theory impacts on macroeconomic aggregates including unemployment, income levels, inflation etc. regulatory institutions in domestic and international economic environment such as the CBN, NDIC/FDIC, IMF etc. as they affect national and international economic development.

### **FIN 829 M.Sc. Seminars in Finance**

This seminar introduces students to the most recent research in the area of Finance and Investment, examining current issues and trends. Students have an opportunity to present and discuss their own research and actively engage in the analysis and discussion of the work of others. Each student is expected to make at least one presentation during the course, focusing on the formulation, design, execution, and results of his/her research.

**38.1. COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – MSC  
FINANCE / ACIB**

**CORE ACIB COURSES**

**FIN 744 Practice of Banking**

Banker and customer relationships; customer rights and duties, bankers rights and duties, protection given to bankers under the Bill of Exchange Act and the Cheques Act, special relationships and duties arising out of banker's opinions, indemnities, power of attorney, mandate, standing order and direct debts and safe custody; actions to be taken on the death, mental disorder and bankruptcy of customers, dissolution of partnership, winding up of corporate customers upon receipt of garnishee order or court summons/orders; termination of banker's authority to pay customer's cheques; types of account holders and reasons and procedures for closing accounts; and transactions and payment systems. Banking transactions and payment systems: payment and collection of cheques and other instruments, the bankers clearing system, Nigerian Interbank Settlement System (NIBSS) and electronic payment systems; securities for bank lending: secured credit transaction, concept and law; securities against real assets: land and buildings, debentures and charges, ships and vessels, chattels; financial securities: stocks and shares, cash and deposits and life policies, negative pledge, letters of comfort, goods and produce and book debts. Guarantees, bonds, indemnities and pledges, warehouse receipts, interest in wills and trust, agricultural charges, hypothecation and trust receipts. The Agricultural Credit Guarantee Scheme, perfection of securities; and negotiable instruments.

**FIN 745 Law, Ethics and Corporate Governance**

Philosophy of ethics and value; the ethics framework for business managers and accountants. Threats to ethics, corporate pressures and environmental. Ethical problems faced by accountants, understanding ethics and moral judgment. Normative theories of ethics and moral judgment-regulation, ethics. Professional ethics and self-regulation, ethics in a regulatory environment, corporate social responsibility and corporate government. Statutes and regulations governing the establishment, supervision and operation of banks(CAMA, BOFIA, CBN Act, NDIC Act, Money Laundering Prohibition Act, EFCC Act); Business Law: agency, partnership; Company Law; Securities Law; Bankruptcy Law; nature and importance of corporate governance, basic issues in ethics, fundamental principles of business morality, and self-regulatory mechanism in the banking industry.

### **FIN 812 International Trade Theory and Finance**

Topics covered include; overview of the global financial system, foreign exchange market, national banking and financial markets, Euro-banks and euro financing, international trade financing; international financial institutions and financial integration in ECOWAS and Africa; problems of developing countries in the international financial system and markets; reform of the international financial system; external borrowing, debt and debt servicing problems; foreign aid and foreign direct investment; Nigeria and international trading, payments and financial issues in the context of the changing global financial developments. Overview of the international financial system; international banking and financial market, including the foreign exchange risks and management practices by international businesses; Euro-banks and Euro-financing; financing methods in international trade; international financial management, capital budgeting, project finance, and transfer pricing by multinational corporations, foreign direct investment, multilateral investment guarantee and investment codes; intentional business operations in the context of changing global financial developments.

### **FIN 824 Management of Financial Institutions**

The course is concerned with financial management of banks and other financial institutions. The management decision making problems in the course view, the financial firm as having goals of maximizing returns on assets subject to the constraints of the funds model, the maintenance of solvency, the capital adequacy problem and demands of the regulatory authorities. Also covered are the analysis of various issues and problems common to many financial intermediaries, such as corporate planning and control in financial institutions; competition for funds, assets and liability management, marketing of financial services, the measurement of performance, and the reconciliation of profit objectives with public relations and social obligations. Case studies are expected to be employed in illustrating typical real issues.

### **FIN 833 Bank Lending and credit Administration**

The course is designed to expose students to the basic principles of lending and credit administration. It covers topics in bank credit organizations, the lending environment and financial statements analysis. Others are sectorial forms of lending such as commercial lending, consumer lending and credit administration. The course involves course work and case studies.

**TAXATION/ACTI, Programmes - MSc FINANCE (TAXATION)/ACTI, MSc ECONOMICS (TAXATION)/ACTI & MBA (TAXATION)/ACTI PROGRAMMES**

**39 COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – MSC ACCOUNTING (TAXATION)/ ACTI**  
**MSc ACCOUNTING (TAXATION) (YEAR 1 FIRST SEMESTER)**

COURSE CODE	COURSE TITLE	STATUS	UNITS
ACC 821	FINANCIAL ACCOUNTING THEORY	C	3
ECN 829	ECONOMIC THEORY	C	3
ACC 831	QUANTITATIVE TECHNIQUES	C	3
FIN 829	CORPORATE FINANCE	C	3
ACC 803	PUBLIC FINANCE (TAXATION AND FISCAL POLICY)	C	3
ACC 819	TAX THEORY PRACTICE AND ADMINISTRATION	C	3
			18

**MSc ACCOUNTING (TAXATION) (YEAR 1 SECOND SEMESTER)**

COURSE CODE	COURSE TITLE	STATUS	UNITS
ACC 812	TAX AUDIT AND INVESTIGATION	C	3
ACC 810	OIL, GAS AND OTHER MINERAL TAXATION	C	3
ACC 811	MANAGEMENT INFORMATION SYSTEM	C	3
ACC 822	MANAGEMENT ACCOUNTING THEORY	C	3

ACC 815	RESEARCH METHODOLOGY	C	3
ACC 816	COMPANIES INCOME TAX AND PERSONAL INCOME TAX	C	3
			18

**MSc ACCOUNTING (TAXATION) (YEAR 2 FIRST SEMESTER)**

COURSE CODE	COURSE TITLE	STATUS	UNITS
ACC 823	AUDITING THEORY	C	3
ACC 826	SEMINAR IN TAXATION	C	3
ACC 825	PUBLIC SECTOR ACCOUNTING	C	3
ACC 810	INTERNATIONAL ACCOUNTING	C	3
ACC 827	INTERNATIONAL COMPARATIVE STUDIES OF TAXATION	C	3
ACC 829	NIGERIA TAX LAWS AND DECIDED TAX CASES	C	3
ACC 831	VALUE ADDED TAX AND OTHER CONSUMPTION TAXES	C	3
TOTAL			18

**MSc ACCOUNTING (TAXATION) (YEAR 2 SECOND SEMESTER)**

COURSE CODE	COURSE TITLE	STATUS	UNITS
ACC 830	RESEARCH THESIS	C	6

**40. COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – MSc FINANCE  
(TAXATION) ACTI**

**MSc FINANCE (YEAR 1 FIRST SEMESTER)**

COURSE CODE	COURSE TITLE	STATUS	UNITS
FIN 818	QUANTITATIVE TECHNIQUES	C	3
ECN 813	MICROECONOMIC THEORY	C	3
FIN 803	PUBLIC FINANCE (TAXATION AND FISCAL POLICY)	C	3
FIN 811	CORPORATE FINANCE	C	3
FIN 824	MANAGEMENT OF FINANCIAL INSTITUTIONS	C	3
FIN 816	COMPANIES INCOME TAX AND PERSONAL INCOME TAX 1	C	3
TOTAL			18

**MSc FINANCE (YEAR 1 SECOND SEMESTER)**

COURSE CODE	COURSE TITLE	STATUS	UNITS
ECO 812	MICROECONOMIC THEORY	C	3
ACC 812	TAX AUDIT AND INVESTIGATION	C	3
FIN 802	MANAGEMENT OF FINANCIAL INSTITUTIONS	C	3
FIN 813	COMPANIES INCOME TAX AND PERSONAL INCOME TAX 2	C	3
FIN 815	RESEARCH METHODOLOGY	C	3

FIN 817	OIL& GAS AND OTHER MINERALS TAXATION	C	3
TOTAL			18

#### **MSc FINANCE (YEAR 2 FIRST SEMESTER)**

COURSE CODE	COURSE TITLE	STATUS	UNITS
FIN 829	MSC RESEARCH SEMINAR	C	3
FIN 812	THEORY OF FINANCIAL INTERMEDIATION	C	3
FIN 840	BASIC ECONOMETRICS	C	3
FIN 805	INTERNATIONAL COMPARATIVE STUDIES OF TAXATION	C	3
FIN 807	NIGERIA TAX LAWS AND DECIDED TAX CASES	C	3
FIN 813	VALUE ADDED TAX AND OTHER CONSUMPTION TAXES	C	3
			18

#### **MSc FINANCE (YEAR 2 SECOND SEMESTER)**

COURSE CODE	COURSE TITLE	STATUS	UNITS
FIN 888	RESEARCH THESIS	C	6

### **41. COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – MSC ECONOMICS TAXATION/ ACTI**

#### **MSc ECONOMICS (TAXATION) FIRST SEMESTER**

<b>COURSE CODE</b>	<b>COURSE TITLE (CITN)</b>	<b>STATUS</b>	<b>UNIT</b>
ECO 801	ADVANCED MICRO ECONOMICS	C	3
ECO 811	ECONOMETRICS	C	3
ECO 803	QUANTITATIVE RESEARCH METHOD	C	3
ECO 805	PUBLIC FINANCE (TAXATION AND FISCAL POLICY)	C	3
ECO 807	COMPANIES AND PERSONAL INCOME TAX	C	3
ECO 809	INTRODUCTION TO TAXATION	C	3
			18

## **SECOND SEMESTER**

<b>COURSE CODE</b>	<b>COURSE TITLE (CITN)</b>	<b>STATUS</b>	<b>UNIT</b>
ECO 811	ADVANCE MACRO ECONOMICS	C	3
ECO 812	QUALITATIVE RESEARCH METHOD	E	3
ECO 813	ISSUES IN ENTREPRENEURSHIP	E	3
ECO 815	TAX AUDIT AND INVESTIGATION	C	3
ECO 817	TAX THEORY PRACTICE AND ADMINISTRATION	C	3
ECO 819	VALUE ADDED TAX AND OTHER CONSUMPTION TAXES	C	3
			18

## **THIRD SEMESTER**

<b>COURSE CODE</b>	<b>COURSE TITLE (CITN)</b>	<b>STATUS</b>	<b>UNIT</b>
ECO 821	SEMINAR IN TAXATION	C	3
ECO 822	THEORIES OF ECONOMIC DEVELOPMENT	C	3
ECO 825	INTERNATIONAL COMPARATIVE STUDIES OF TAXATION	C	3
ECO 826	NIGERIAN TAX LAWS AND DECIDED TAX CASES	C	3
ECO 828	OIL, GAS AND OTHER MINERAL TAXATION	C	3
			15

#### **FOURTH SEMESTER**

<b>COURSE CODE</b>	<b>COURSE TITLE (CALEB)</b>	<b>STATUS</b>	<b>UNIT</b>
ECO 899	DISSERTATION	C	6

### **42 COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – MASTER OF BUSINESS ADMINISTRATION (MBA) TAXATION/ACTI**

#### **FIRST SEMESTER**

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNIT</b>
MBA 801	INTRODUCTION TO ACCOUNTING	C	3
MBA 803	MANAGERIAL ECONOMICS	C	3
MBA 805	CORPORATE FINANCE	C	3
MBA 807	INTRODUCTION TO GENERAL MANAGEMENT	C	3

MBA 809	INTRODUCTION TO MARKETING	C	3
MBA 811	BUSINESS ENVIRONMENT	C	3
MBA 843	SEMINAR ON CONTEMPORARY TAX ISSUES	R	3
MBA 847	INTRODUCTION TO TAXATION	C	3
			21

## **SECOND SEMESTER:**

COURSE CODE	COURSE TITLE	STATUS	UNIT
MBA 810	RESEARCH METHODOLOGY	C	3
MBA 812	QUANTITATIVE METHODS FOR MANAGEMENT	C	3
MBA 814	HUMAN RESOURCES MANAGEMENT	C	3
MBA 816	ICT MANAGEMENT	C	3
MBA 818	MARKETING MANAGEMENT AND STRATEGY	C	3
MBF 820	CORPORATE STRATEGY	C	3
MBA 844	SEMINAR ON DIRECT AND INDIRECT TAXES	C	R
MBA 846	COMPANIES INCOME TAX AND PERSONAL INCOME TAX	C	3
	<b>TOTAL CREDIT UNITS</b>		21

## **THIRD SEMESTER:**

COURSE CODE	COURSE TITLE	STATUS	UNIT
MBA 821	BUSINESS LAW	C	3
MBA 823	OPERATIONS MANAGEMENT	C	3
MBA 825	ENTREPRENEURSHIP	C	3
MBA 827	ORGANISATIONAL BEHAVIOUR	C	3
MBA 829	FRENCH	R	3
MBA 831	GRADUATE SEMINAR	C	3
MBA 849	OIL AND GAS MINERAL TAXATION	C	3
	<b>TOTAL CREDIT UNITS</b>		21

#### **FOURTH SEMESTER:**

#### **TAXATION**

NEW COURSE CODE	COURSE TITLE	STATUS	UNIT
MBA 817	TAX PRACTICE AND ADMINISTRATION	C	3
MBA 815	TAX AUDIT AND INVESTIGATION	C	3
MBA 813:	PUBLIC FINANCE (TAXATION AND FISCAL POLICY)	C	3
MBA 819	INTERNATIONAL COMPARATIVE STUDIES OF TAXATION	C	3
MBA 809	NIGERIAN TAX LAWS AND DECIDED TAX CASES	C	3

MBA 868	VALUE ADDED TAX AND OTHER CONSUMPTION TAXES	C	3
MBA 890	RESEARCH PROJECT	C	6
			24

## **42 (1) COURSE DESCRIPTION OF CORE ACTI (TAXATION) COURSES**

### **ECO 817/ACC 810/FIN 802/MBA 817: Tax Practice and Administration**

This Course focuses essentially on tax administration in the 38 Tax Authorities. The FIRS, the 36 States Internal Revenue Service and the newly established Internal Revenue Service in the FCT. It will also focus on overview of a good tax system, Overview of administration of Companies income Tax, Tertiary Education Tax, Petroleum Profits Tax, Personal Income tax, Capital Gains Tax and of course the administration of value added tax and stamp duties in Nigeria. Topics to include Bodies responsible for administration of all taxes in Nigeria whether at the Federal, States and Local Governments level. Others include assessment, collection, enforcement, accounting for taxes collected, Tax Offences and Sanctions. Tax administration, tax reforms.

This course will cover Knowledge of the Chartered Institute of Taxation of Nigeria (CITN) Act, CITN Professional Rules and Practice Guidelines, CITN Guidance Notes and Ethical Principles, Engagement Letters for Chartered Tax Practitioners, Professional Independence, client issues, charging for service and other ethical issues.

### **ECO 815/ACC 812/FIN 804/MBA 815: Tax Audit and Investigation**

This course seeks to deepen students understanding of the more complex problems of tax audit and investigation. Topics should include: types of Tax Audits, tax auditing principles; Tax Audit plan, controlling and recording an audit, interview techniques; audit evidence techniques and procedures; statutory powers of the tax auditors; and tax audit report writing. Other topics will include Audit Plan, Audit Reports, Audit Work Program, FIRS Tax Audit Adjustments and Re-classification, Post Audit Excel Templates and Ethics and Integrity.

Tax Fraud, Special Tax Crimes, Civil Investigation and Criminal Investigation. Offshore Tax Investigation is also essential.

### **ECO 805/ACC 803/FIN 803/MBA 813: Public Finance**

This course will cover topics such as: overview of welfare economics; market failure and the rationale for government intervention; public expenditure theory (resource allocation mechanism, public choice theory, theories of public expenditure growth, theories of taxation, public expenditure policy in Africa, public enterprise pricing); cost benefit analysis; investment rules and government failures; theory of taxation, the incentive effects of taxation, theory of optimal taxation); tax policy (tax design and structure,); inter-governmental fiscal relations (principles of inter-governmental relations. Assignment of functions: Expenditure and tax assignments. Principles of Revenue Allocation, Revenue sharing formula/inter-governmental grants and transfers: The African experience), public debt (Domestic and external debt: causes, management and financing. Overview of external debt in Africa and HIPC initiatives).

### **ECO 825/ACC 827/FIN 805/MBA 819: International Comparative Studies of Taxation**

This course seeks to deepen students understanding of the more complex problems in international comparative studies of taxation. Topics include: comparison of tax laws of different economies; double taxation agreements (DTA); taxing rights under DTA; OCED model tax convention; UN model tax convention and the Nigeria Model; International traffic, taxation of e-commerce; tax haven; regional cooperation in tax matters; and mutual assistance Procedures(MAP).

### **ECO 826/ACC 829/FIN 807/MBA 809: Tax Revenue Laws and Decided Tax Cases**

Essentially, the Course should cover Introduction to the Nigerian Constitution, Division of Taxing Powers, Overview of all Nigerian Tax Laws, the legal effect of incorporation of companies, knowledge of company law, Imposition of Tax, Jurisdiction of the Courts, Interpretation of Tax Statutes, Legal framework of Insurance, Banking. Law of Agency, Contract, Hire Purchase and Partnership as they relate to the Nigerian tax system. Knowledge of Tax Appeal Tribunal is also important. Applicable laws to free trade zone such as NEPZA Cap N107 LFN 2004 and OGEFZA Cap 05 LFN 2004 should not be ignored. Tax Appeal is of great essence.

At least ten Decided Tax cases should be examined by the students.

### **ECO 809/MBA 847: INTRODUCTION TO TAXATION**

#### **AN OVERVIEW OF TAXATION:**

The Concept of Taxation, Definition/Meaning of Tax and Taxation, Difference between Tax and Other Charges, Justification for Taxation as the most Reliable Source of Revenue to Government, History of Taxation, Origin of Taxation, Taxation in Nigeria: Colonial Era, Taxation in Nigeria: Post Independence Era to Date, Legislative Framework, Enabling Acts, Sources of the tax laws in Nigeria, Objectives of Taxation, Some of the purposes for which Government spends money, Types of Taxes: Direct Tax, Indirect Tax; Classification of Tax: By Tax Base, By Tax Incidence, By Method-Proportional, Progressive, and Regressive, Characteristics/Qualities of a Good Tax, Equity and Justice; Convenience; Certainty; Administrative Efficiency; Neutrality; Flexibility; Impartiality; Simplicity

**THE NIGERIAN TAX SYSTEM:** The Relationship between Tax Policy, Tax Law and Tax Administration, The National Tax Policy, Nigerian Tax Administration: The Joint Tax Board, Federal Inland Revenue Service, State Board of Internal Revenue, Local Government Revenue Committee;

**OTHER FUNDAMENTAL CONCEPTS/PRINCIPLES:** Tax Appeal Tribunal, Tax Reforms, Tests of Trade, Definition of Employment, Differences between Employment and Engagement on contract, Measurement of Income, Revenue Income/Expenses, Capital Income/Expense, Pioneer Status and other Tax incentives.

**ACC 816/FIN 816/ECO 807/MBA 846: COMPANIES & PERSONAL INCOME TAXES**

**ACC 831/FIN 813/ECO819/MBA 868: VALUE ADDED TAX AND OTHER CONSUMPTION TAXES**

**ACC 810/FIN 817/ECO 828/MBA 849: GAS AND OTHER MINERALS TAXATION**

**MBA 844: SEMINAR ON DIRECT AND INDIRECT TAXES**

**43. COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – BUSINESS ADMINISTRATION**

**LIST OF COURSES**

**First Semester:**

Course Code	Course Title	Credit Units	Status
MBA 801	Introduction to Accounting	3	C
MBA 803	Managerial Economics	3	C
MBA 805	Corporate Finance	3	C
MBA 807	Introduction to General Management	3	C
MBA 809	Introduction to Marketing	3	C
MBA 811	Business Environment	3	C
	<b>Total Credit Units</b>	<b>18</b>	

**Second Semester:**

Course Code	Course Title	Credit Units	Status
MBA 810	Research Methodology	3	C
MBA 812	Quantitative Methods for Management	3	C
MBA 814	Human Resources Management	3	C
MBA 816	ICT Management	3	C
MBA 818	Marketing Management and Strategy	3	C
MBA 820	Corporate Strategy	3	C
	<b>Total Credit Units</b>	<b>18</b>	

**Third Semester:**

Course Code	Course Title	Credit Units	Status
MBA 821	Business Law	3	C
MBA 823	Operations Management	3	C
MBA 825	Entrepreneurship	3	C
MBA 827	Organisational Behaviour	3	C
MBA 829	Study of French Language	3	C
MBA 831	Graduate Seminar	3	C
	<b>Total Credit Units</b>	<b>18</b>	

**Fourth Semester:**

The fourth semester is devoted to courses in areas of specialization and the Research Project. During the last semester of the MBA programme, each student will have approved for him/her a topic on which will carry out thorough research and write an acceptable dissertation. The dissertation must demonstrate a good knowledge of the following:

- a. Clear evidence of analytical understanding of the topic studied
- b. Critique of other approaches to the study of the content of

Your topic and the limitation/delimitation there-in

- (c) Critical evaluation of principles and approaches to successful

Management of corporate organizations

- c. Managerial functions and general problems facing profit-
  - a. Making /non-profit-making ventures in Nigeria.
  - a. Vision on the growth and development of businesses in the country
    - a. and the effect on National Development.

All the specialization courses are Elective but the Research Project is Compulsory. Students who do not wish to specialize in any particular area may offer a combination of courses selected from any of the areas of specialization provided they meet the prerequisites (if any) and subject to timetable course scheduling.

### Accounting Specialization:

Course Code	Course Title	Credit Units	Status
MBA 832	Advanced Accounting and Theory	3	E
MBA 834	International Accounting	3	E
MBA 836	Auditing and Investigations	3	E
MBA 838	Public Sector Accounting	3	E
MBA 840	Taxation and Public Finance	3	C
MBA 842	Managerial Accounting	3	C
MBA 890	Research Project	6	C
	<b>Total Credit Units</b>	<b>24</b>	

### Human Resources Management Specialization

Course Code	Course Title	Credit Units	Status
MBA 844	Industrial Relations	3	E
MBA 846	Personnel Staff Evaluation	3	E
MBA 848	Compensation Theory & Administration	3	E
MBA 850	Organisational Change & Development	3	E

MBA 852	Organizational Design	3	E
MBA 854	Advanced Organisational Behaviour	3	E
MBA 890	Research Project	6	C
	<b>Total Credit Units</b>	<b>18</b>	

### Marketing Specialization

Course Code	Course Title	Credit Units	Status
MBA 856	Product Planning and Management	3	E
MBA 858	International Marketing	3	E
MBA 860	Advertising and Consumer Behaviour	3	E
MBA 862	Industrial Marketing	3	E
MBA 864	Marketing Research	3	E
MBA 866	Pricing Policies	3	E
MBA 890	Research Project	6	C
	<b>Total Credit Units</b>	<b>24</b>	

### Production/Operations Management Specialization

New Course Code	Course Title	Credit Units	Status
MBA 868	Production Management Problems & Techniques	3	C
MBA 870	Facilities Location and Layout Methods	3	C
MBA 872	Project Management and Feasibility Studies	3	C
MBA 874	Case Studies in Production & Operations Management	3	C
MBA 876	Materials Management	3	C

MBA 878	Strategic Decisions in Production Management	3	C
MBA 890	Research Project	6	C
	<b>Total Credit Units</b>	<b>18</b>	

#### **44. COURSE DESCRIPTION**

##### **MBA 801 INTRODUCTION TO ACCOUNTING – 3 CREDIT UNITS**

Accounts of a sole trader, Manufacturing accounts. Accounts of non-profit organization; Partnership accounts formation of a partnership, admission and retirement of partners; dissolution. Accounts of a company – final accounts of companies, including appropriate of a profit. Interpretation of accounts. Accounting ratios.

##### **MBA 803: MANAGERIAL ECONOMICS --3 CREDIT UNITS**

Application of principles from various fields in economics and business to management decision making; Price mechanism, allocation of resources, profit drivers of the firms' strategy, understanding market forces, the meaning of competition, pricing and profits, market power good or evil, playing games 1 competition versus cooperation, playing games, 11 Entry and Exit Firms versus Markets; Make or buy, auctions and market design, economics of information.

##### **MBA 805 CORPORATE FINANCE -- 3 CREDIT UNITS**

The principles and procedures underlying financial statements; financial transactions; alternative accounting statements, tools or analysis of ratios and other quantitative measures; accounting information useful for managerial action; application of information in decision situations. Project Appraisal analysis of investment projects, the impact of risk, tax and inflation, the term structure of interest rates, the cost of capital and target rates of return; capital markets – its efficiency, the role of intermediaries, sources of finance, the borrowing decision and company valuation and optimal portfolio allocation; capital structure – optimal capital structure of firms; mergers and acquisitions and the market for corporate control, market efficiency, the principle of capital structure, gearing and basics of hedging and international fiancé.

### **MBA 807 INTRODUCTION TO GENERAL MANAGEMENT -- 3 CREDIT UNITS**

Evolution of Management thought; Functions and responsibility of general management; Understanding global management; Managing through processes; Managerial values, Managerial decision making; Planning, organizing, directing and coordination, Problems affecting the character and success of the enterprise; the design and implementation of corporate strategy.

### **MBA 809 INTRODUCTION TO MARKETING -- 3 CREDIT UNITS**

This course will expose students to marketing concept, philosophies, intelligence and Research. The management of the marketing Mix and strategic issues in marketing Management.

### **MBA 811 BUSINESS ENVIRONMENT --3 CREDIT UNITS**

The basic objective of the course is to examine the legal, social, political and economic framework which business organization must operate in the Nigerian environment. Because of the pervasive influence of globalization and reduction of distances between nations, there value systems, language etc. international business environments will be explored.

Topic covered include: The concept, scope and nature of the business environment and environmental scanning, Legislations related to business. Ethical theories of business decision, social and cultural issues in business. Theoretical and practical issues of the Nigerian political economy which dictates the basis of fiscal and monetary policies, macroeconomics management and business practices.

### **MBA 810 RESEARCH METHODOLOGY --3 CREDIT UNITS**

Introduction to research purpose, conceptual foundation of research, methods of social/business investigation, scientific research method, process of research; problem identification and definition, literature review, theoretical framework building, hypotheses development, measurement of variables, data collection and sources, data presentation and analysis, organization of results, and thesis writing.

### **MBA 812 QUANTITATIVE METHODS FOR MANAGEMENT—3 CREDIT UNITS**

Basic elements of decision making under conditions of uncertainty, set theory, probability theory; classical statistics and statistical decision theory: Linear programming, primal and dual simplex algorithms, transportation and network analysis concepts of queuing theory, games, statistical inference and hypothesis testing, time series..

#### **MBA 814      HUMAN RESOURCES MANAGEMENT --3 CREDIT UNITS**

The course is designed to enable the students to have a thorough knowledge and understanding of the necessary strategies involved in efficient management of organizational human resources. Areas covered include; nature of personnel administration; personnel policies; management of career patterns; changing and nature of personnel administration in relation to industrial democracy; participation of workers; information technology; corporate diversity; human resource planning (demand and supply forecasting, factors affecting human resource planning, etc.); management succession and promotion policies; labour turnover (measurement, classification and analysis); recruitment and selection (system approach, job descriptions and personnel specification, recruitment and selection procedures, etc.); contracts of employment, discrimination and equal opportunity; employee training and development; performance management and appraisal; employee assessment and evaluation; counselling and coaching; remuneration systems; employment services and administration; industrial relations; personnel records; public personnel management; collective bargaining process; conflict resolution; grievance procedure and arbitration.

#### **MBA 816      ICT MANAGEMENT – 2 CREDIT UNITS**

Uses of computers in problem solving; its application to the solution of problems at introductory level in capital budgeting and linear programming, software packages (SESS, E-views, etc)

#### **MBA 818      MARKETING MANAGEMENT & STRATEGY 2 CREDITS**

Perspectives and problems of marketing management in a multi-product firm; the concept and application of strategic planning to business units and functional areas of marketing, utilization of current marketing strategy models as aids in strategy formulation, decision processes for product planning, pricing, promotion, distribution and competitive strategy.

#### **MBA 820      CORPORATE STRATEGY**

Conceptual frameworks and models for the analysis of competitive situation and strategic dilemmas; Insight into strategic management; analyses of external competitive environment, industry structure, value chain dynamics, etc.

#### **MBA 821 BUSINESS LAW --3 CREDIT UNITS**

Elements of the law of contract. Law of agency; nature and creation of principal agent relationships, rights and duties inter-se and vis-à-vis third parties scope of agent's authority, ratification and termination of agency, undisclosed principle. Scales of good including Hire Purchase and Special rules relating to such contracts. Bailment, C.I.F., F.B.O and Ex. Shop contracts. Negotiable Instruments (in outline only). Company Law (in outline only). Insurance Law (in outline only).

#### **MBA 823: OPERATIONS MANAGEMENT 3 CREDIT**

Issues in operations strategy, process analysis and the use of data and managerial opinion in making effective propositions to address the questions in the cases. Major economic decision, problems of production and operations management; aggregate production and work - force scheduling; multi-plant allocation of product; large scale project control (CPM and PERT); production and inventory control; demand forecasting; quality control; and short run job – shop scheduling; the interaction of production problems with those of other functional areas, queuing theory, dynamic programming, multiple regression and correlation.

#### **MBA 825 ENTREPRENEURSHIP - 3 CREDIT**

Objective is to impart knowledge and skills required to start new businesses. Analysis of personal efficacy and self-awareness. Personal characteristics of entrepreneurs. Identification of ideas and venture capital opportunities. Sources and availability of resources; Finance, Technology, manpower appropriation technology; Government regulations; National and International Regulatory and support environment; marketing plan, policy and strategy accounting and keeping Accounts; Financial Statements; Feasibility studies and Project evaluation; Students 'Business plan.

#### **MBA 827: ORGANIZATIONAL BEHAVIOUR -- 3 CREDIT UNITS**

A survey of the major theoretical approaches to the study of organization. Critical review of the contributions of the major organization administrative theories. An examination of the

analysis of organization as systems with emphasis on the assessment of their operational effectiveness and efficiency. A discussion of the relevance of organization/administrative theories to public and business, administration with special reference to Nigeria and African experience.

#### **MBA 829      STUDY OF FRENCH LANGUAGE -- 3 CREDIT UNITS**

The course is designed to introduce the students to the fundamentals of oral communication, reading, writing and usage in French language.

#### **MBA 831      GRADUATE SEMINAR -- 3 CREDIT UNITS**

The objective of the course is to offer an opportunity to select and explore at least two topics that are relevant to their areas of interest. They are expected to acquire the tools to analyze and proffer solutions to business issues.

#### **MBA 832: ADVANCED ACCOUNTING AND THEORY -- 3 CREDIT UNITS**

Analyze the accounting discipline and its purpose, needs of users of accounting information; accounting theory and concepts of income measurement; disclose requirements for profit and loss statement and balance sheet; amalgamation and reconstruction, consolidated accounts; branch and department accounts, current cost accounting; inflation account; fixed asset valuation; human asset valuations; social responsible accounting.

#### **MBA 834      INTERNATIONAL ACCOUNTING --3 CREDIT UNITS**

The course is designed for students interested in accounting and financial control of international operations. It involves preparation, transition and analysis of financial statements for companies that have branches of foreign multinational companies.

#### **MBA 836      AUDITING AND INVESTIGATIONS --3 CREDIT UNITS**

This courses seeks to deepen students understanding of the more complex problems of tax audit and investigation. Topics should include tax auditing principles, planning tax audit and investigation, controlling and recording an audit, interview techniques, audit evidence techniques and procedures; statutory powers of the tax auditors; and tax audit report writing.

#### **MBA 838      PUBLIC SECTOR ACCOUNTING --3 CREDIT UNITS**

Basic accounting for non-profit organization; basic characteristics of government accounting structure of governmental accounting in Nigeria; the treasury; audit department; consolidated

revenue fund, capital and development fund, planning, programming and budgeting system (PPBS)

**MBA 840      TAXATION AND PUBLIC FINANCE    --3 CREDIT UNITS**

Tax theory. Income tax for individuals, partnership and corporation tax, tax planning and control sales and company tax, value added tax. The Nigerian tax laws. Tax planning in a multinational context. An examination of government operations and its role in economic activity and distribution. Theory of public goods and its optimal distribution.

**MBA 842      ADVANCED COST AND MANAGEMENT ACCOUNTING --3 CREDIT UNITS**

Nature, scope and purpose of costing. Theory of costing, elements of costing, material, labour and over-head (in outline only): cost allocation, apportionment; methods of costing. Marginal costing, costing ascertainment cost/profit volume analysis break even analysis. Standard costing, profit contribution, mix and yield variances; interpretation of variances and their relationships.

**45. HUMAN RESOURCES MANAGEMENT**

**MBA 844:      INDUSTRIAL RELATIONS --3 CREDIT UNITS**

Theories of industrial relations and the industrial relations systems. Trade unionism and employers' associations. Labour-management relations at the organizational and industry level. The role of government industrial relations. Strikes and trade dispute settlement procedures and collective bargaining in the public and private sectors of the Nigerian economy. The Nigerian Labour Law.

**MBA 846      PERSONNEL STAFFING EVALUATION 3 CREDITS**

Elements of manpower planning and internal labour markets; validation procedures for determining the potential job effectiveness and individuals, description and validity of selection instruments such as tests, interviews and biographical data, measuring performance, turnover and absenteeism and the process of performance appraisal.

**MBA 848      COMPENSATION THEORY AND ADMINISTRATION - 3 CREDITS**

Examination of the determinants of wage levels, wage structures and individual wages; analysis of the impact of wages on work attitude and performance in organizations.

**MBA 850      ORGANIZATIONAL CHANGE AND DEVELOPMENT      3  
CREDITS**

This course outlines the basic steps or stages involved in the process of organizational diagnosis and change. Emphasis is placed upon the development of strategies necessary for gaining entry to an organization, collecting data, and feeding back data to the client organization. Several specific strategies and technologies for changing organizations are presented and the relative strengths and weaknesses of the strategies are examined.

**MBA 852:      ORGANISATIONAL DESIGN      -- 3 CREDIT UNITS**

This course takes an in-depth study of organizational processes and structures. The following are the primary objectives. (a) to develop an understanding of theories or approaches to the design of organizations where design is defined primarily in terms of structure and requisite processes of coordination and information processing. (b) To develop a sensitivity to and awareness of the 'realities' of organizations. (c) To understand how organizational planning and design decisions are interdependent and critical to be successful implementation of strategic and short-term aims of the organization.

**MBA 854      ADVANCED ORGANIZATIONAL BEHAVIOUR      3 CREDITS**

This course provides up-to-date information on the behaviour of individuals and groups in any organization. Topics covered include individuals and group behaviour, motivation, organization theory, work design and control. Other topics include leadership style, group decision-making, organizational socialization, power and influence, group dynamics, communication and conflict management.

**46.0. MARKETING**

**MBA 856:      PRODUCT PLANNING AND DEVELOPMENT --3 CREDIT UNITS**

Issues involved in the development and introduction of new products and the management of existing products; positioning, screening; concept testing and development of new products simulations; pre-test market models; product rollout; diffusion of innovations; product life cycle and branding strategies.

**MBA 858: INTERNATIONAL MARKETING --3 CREDIT UNITS**

Students explore international strategies, special goals, and decision-making process across several countries and selection of entry strategies for foreign markets. Comparative marketing arrangement are examined. Covers factors which need to be recognized by international marketing managers in analyzing markets covering foreign operations, and in assessing economic, cultural and political aspects of international markets.

**MBA 860 ADVERTISING AND CONSUMER BEHAVIOR --3 CREDITS**

The course is intended to enable the student understand the basis and nature of consumer purchasing and consumption behaviour, the formulation and implementation of effective advertising programmes and thus prepare him/her for better marketing decision-making. The course is inter-disciplinary, relying heavily on concepts and theories borrowed and adapted from other behavioural sciences especially psychology, social psychology, sociology, economics and anthropology.

Topics covered include the role of Advertising in the marketing mix, advertising and the process of communication, influence of buyer behaviour on the character of promotional efforts, determining basic promotional strategy, choice of appropriate methods to achieve desired objectives, planning creative strategy, effective execution of promotional programmes, measuring the results of promotional efforts, budgeting and the evaluation of advertising expenditures, the agency and the media, consumer needs, motivation perception, learning, personality attitudes, communication, lifestyle, group influence, family influences, personal influence and opinion leadership, social class, and cultural influences as they affect consumer motivation and behaviour.

The course emphasizes consumer decision-making and comprehensive models of consumer behaviour and their implications for marketing management.

**MBA 862: INDUSTRIAL MARKETING -- 3 CREDIT UNITS**

Basic factors influencing consumer behaviour, with emphasis on managerial use of consumer decision making models; Buyers behaviour modelling from both economics and behavioural sciences; Consumer information processing, stochastic brand device models; Risk taking and market segmentation. Consumer needs, motivation, personality, life-style and other socio-

cultural influence on consumer motivation and behaviour and their implication for marketing management will be examined.

#### **MBA 864:    MARKETING RESEARCH --3 CREDIT UNITS**

Nature of research, determine the need for research concepts and method; analysis and interpretation of data, evaluation; use and presentation of research findings; using such findings in developing market plans and programmes and evaluating effects on marketing action.

#### **MBA 866        PRICING POLICY (PP)                    3 CREDITS**

Pricing – quality issues; dealing policies; multi-plant pricing; peak load pricing; franchising; resale price maintenance, competitive bidding; new product pricing; product line pricing and the marketing mix.

#### **PRODUCTIONS/OPERATIONS MANAGEMENT COURSES**

#### **MBA 868        PRODUCTION MANAGEMENT PROBLEMS & TECHNIQUES3 CREDITS**

Economic decision problems in production management; schematic and quantitative techniques; size and location choices; process and equipment selection; aggregate production; planning and scheduling: production and inventory control; planning system; distribution system, project control, assembly balancing and sampling inspection and quality control.

#### **MBA 870        FACILITIES LOCATION AND LAYOUT MODELS    2 CREDITS**

Theory and method of facility location; plant and warehouse siting; plant layout problems; and location of service facilities such as hospital and stations. Cases of actual applications.

#### **MBA 872        PROJECT MANAGEMENT AND FEASIBILITY STUDIES 3 CREDITS**

Project Identification; Project definition and management; the Concept and Practice of Project Evaluation and Appraisal; Definition of feasibility studies, Implications of feasibility studies;

the accepted Format for presenting feasibility studies report. Tools used in project management and feasibility studies e.g techniques of monitoring, forecasting etc such as PERT, CPM etc.

**MBA 874      CASE STUDIES IN PRODUCTION & OPERATION MANAGEMENT 3**  
**CREDITS**

Analysis of cases illustrating decision problems in production and operation management using techniques studies in MGS 672; aggregate scheduling; job-shop scheduling; equipment replacement; inventory and production control; plant size and location

**MBA 876 MATERIALS MANAGEMENT 3 CREDITS**

This course is concerned with source implications for production and the rising role of the suppliers in determining the growth path of the world economy. It deals with Inventory Control in theory and practice and to some aspects of logistic management. Topics include: Concepts of materials management - principles, philosophy and source implication for organization; Supply and Demand Interfaces and contrast conditions, Cost implication for materials management; Quality control, Static inventory problems under risk and uncertainty; Dynamic models under certainty, risk and uncertainty; Logistics managements - Elements of Prospectus of Postgraduate Programmes transportations, Elements of storage and material handling; Logistics Environment and Logistics Organisation and Control.

**MBA 878 STRATEGIC DECISIONS IN PRODUCTION MANAGEMENT 3 CREDITS**

Analysis Management decision problems in process design, equipment selection and replacement, selection of materials, project planning and control.

<b>MBA 890</b>	<b>RESEARCH PROJECT</b>	<b>6</b>
<b>CREDIT UNITS</b>		

The research project is designed to provide students with the opportunity to undertake independent research of an industrial and labour relation issue and to develop the ability to express their ideas in an organized form.

## **47. COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – ECONOMICS**

### **PROGRAMMES OFFERED**

1. Postgraduate Diploma (PGD)
2. Master of Science (M.Sc.)
3. Master of Philosophy (M.Phil.)
4. Doctor of Philosophy (Ph.D.)

### **AVAILABLE OPTIONS/ SPECIALISATION**

Include but not limited to:

- i. International economics (Trade and Finance)
- ii. Monetary theory and policy
- iii. Development theories
- iv. Development finance
- v. Taxation and fiscal policy
- vi. Transport economics
- vii. Agricultural economics and business

### **47.1. POST GRADUATE DIPLOMA (PGD) ECONOMICS**

#### **ADMISSION REQUIREMENTS**

Students can enter the Postgraduate Diploma from a variety of backgrounds cognate to economics, but will be required to satisfy certain minimum requirements in economics. To qualify for admission to the PGD programme, whether run on a part or full time basis, an applicant must possess the following qualifications:

- i. Candidate must have five credit passes including English and Mathematics at the Secondary School Leaving Certificate Examinations (O' Level).
- ii. Bachelor degree of not less than 3<sup>rd</sup> class honours degree from an approved university.
- iii. Higher National Diploma and/or professional qualifications cognate to economics from a recognized institution obtained at not less than
- iv. An acceptable level of "Pass" in any PGD Entrance Examination conducted by the University.
- v. For the part-time programme, the applicant must have worked for a minimum of two years after obtaining a degree/equivalent.

## 47.2 COURSE CONTENT

### First Semester

S/N	COURSE CODE	COURSE TITLE	UNITS	STATUS
1	ECN 701	Advanced Principles of Economics	3	C
2	ECN 707	Mathematics for Economists	3	C
3	GST 703	Computer Application	3	C
4	ECN 713	Seminars/Research Method	3	C
5	ECN 721	Development Economics	3	C
<b>One Elective Course is to be Selected from the list of Electives offered</b>				
	ECN 723	Energy and Petroleum Economics	3	E
	ECN 709	Monetary Theory and Policy	3	E
<b>Total</b>			<b>18 Units</b>	

## Second Semester

S/N	COURSE CODE	COURSE TITLE	UNITS	STATUS
1	ECN 798	Research Project	6	C
<b>Three Elective Courses to be Selected from the list of Elective offered</b>				
	ECN 712	Managerial Economics	3	E
	ECN 726	Econometrics	3	E
	ECN 742	Industrial Economics	3	E
	ECN 708	Public Finance	3	E
	ECN 706	International Trade Theory	3	E
<b>Total</b>			<b>15 Units</b>	

### 47.3. COURSE DESCRIPTIONS

#### ECN 701: ADVANCED PRINCIPLES OF ECONOMICS 3 Units

Comparative static and dynamics; utility functions and indifference curves; constrained utility maximization; applications on consumer theory-rational work and leisure; etc; cost and production functions, optimization in theory of the firm; duopoly, oligopoly and bilateral monopoly; linear programming analysis of the firm; general equilibrium; theory of production-comparative costs, transformation and contract curves gains from exchange, social and private costs/benefits; theory of distribution-wages rent, profit and interest; social welfare function and pareto optimum.

Advanced treatment of macroeconomic concepts and methods; reviews of basic national income models; detailed themes of consumption, saving and investment; the accelerator principle; classical-keynesian models of employment; output and prices; introduction to capital theories of economic growth: Harrod-Domar, Solow and neo-classical growth models; income distribution; stabilization concepts including lags in stabilization policies; fine-tuning the economy: concepts and fallacies; need for co-ordination.

### **GST 703: COMPUTER APPLICATIONS**

History of Computers; Basic features of Computer; Internal representation of data; Character Representation; Concept of data; Problem solving; Flow Charts; Algorithms; Introduction to Computer Programming with special emphasis on Basic and Fortran; Computer Applications; Use of software.

### **ECN 706: INTERNATIONAL TRADE THEORY: 3 Units**

Nature and scope of international finance and international trade international financial markets; balance of payments theory and policy; models of international monetary Organization; foreign trade multiplier; exchange rate flexibility; monetary integration; internal and external balance; the foreign exchange market; role of international reserves; and special drawing rights; reform of the international monetary system; and the effects of the emerging monetary unions (e.g. euro) on finance.

### **ECN 707: MATHEMATICS for ECONOMISTS: 3 Units**

Functions and equations; series and sequences; simple and compound interests and annuities; matrix algebra; calculus; differentiation of functions of one and several variables geometric interpretation; differentiation and total differentiation of non-algebraic functions, with application to optimization, partial differentiation and total differentiation; maxima and minima; Lagrangian multiplier and constrained optimization in business and economics; linear correlation, regression and time series analysis, implicit functions.

### **ECN 708: PUBLIC FINANCE: 3 Units**

Definition, subject matter and methodology of public finance; classical, Keynesian, and modern economic theories of public finance; the principle of maximum social advantage; the concept of the public sector. Government budgeting and accounting; sources of government revenue; federal finance; taxation: theories and principles; canon and types; incidence and effects; equity in taxation and equitable distribution of income; public expenditure: objectives, types, canon, classification and growth; public debt; and fiscal. Theory of the public sector, static and dynamic incidence of taxes; concept of excess burden under different taxes; budget analysis, budget preparation, presentation and performance; theories and practice of government expenditure and government intervention; user charges and the pricing of public

goods in theory and practice; Pricing investment and financing of public sector enterprises; the public sector and economic development.

### **ECN 709: MONETARY THEORY AND POLICY: 3 Units**

Nature and functions of money. Classical monetary theory, neutrality, inflation and the Keynesian revolution, modern theories of demand for money. The banking system, financial intermediate and determinant of money supply. Money in dynamic models. Open economy macroeconomic models, international aspects of monetary theory. The transmission mechanism of monetary policy. The theory and practice of monetary policy and the design of optimal policies in closed and open economics. Stabilization policy. The term structure of interest rates. The role and conduct of Central Banks, and arguments for Central Bank independence. Balance of payments adjustment theories, stabilization policies and analysis of disturbance under flexible and fixed exchange rate regimes. Flexible exchange rate and exchange rate determination. The international monetary system. Globalization, international capital flows, and their effects of the macroeconomics of developing countries.

### **ECN 712: MANAGERIAL ECONOMICS: 3 Units**

Nature and scope of managerial economics; nature of economic theory; microeconomic decisions; consumer theory and application; the theory of distribution, general equilibrium and welfare economics; macroeconomic decisions; consumption; investment, government and international relations and diplomacy

### **ECN 713: SEMINARS/RESEARCH METHOD 3 Units**

Research method for thesis writing will be taught. Students will within the period provide two seminar papers each for discussion.

### **ECN 721: DEVELOPMENT ECONOMICS: 3 Units**

Definition and differences between economic growth and development; differences between theories of growth and development; diverse structures and common features of less developed countries; theories of economic growth and development including Rostow's stages, linear stages, balanced theory, big push theory, classical and neo-classical theories, Keynesian growth

models and international dependence models; strategies of economic development, optimal industrial development strategies and synthesis of major factors in modern economic development.

### **ECN 723: ENERGY and PETROLEUM ECONOMICS: 3 Units**

Theoretical issues in the economics of world energy demand and supply, petroleum in the international energy economy, economics of crude oil production, cost, refining and transportation, Political economy of oil. OPEC and the world, oil industry and OPEC. Petroleum and energy in the Nigerian economy. Theory of the firm: production, classical and other theories; Organization, structure, characteristics and role of the energy/petroleum/gas industries; its price and output determination, natural monopolies; externalities, environmental pollution problems of natural resource depletion and resource pricing; analysis of global institution; energy markets, supplies and other market institutions; energy policy formulation in Nigeria and others; Nigerian gas development, deregulation, liberalization, transmission, generation and distribution; management development and politics of energy; and international experience. Discussions on Renewable energy.

### **ECN 726: ECONOMETRICS: 3 Units**

Definition and methodology of econometrics; meaning and scope of econometrics, regression model: simple, linear and multiple regression; methods of estimation: ordinary least squares(OLS), indirect least squares, two-stage least squares; presentation and interpretation; simultaneous equation system(2 equation model only); simultaneous equation systems; estimation problems, choice of techniques, equation of parameter estimates; simulations; forecasting and test of forecasting ability; introduction to statistical/econometric software packages: SPSS,E-VIEWS,STATA, GRETL.

### **ECN 742: INDUSTRIAL ECONOMICS: 3 Units**

Scope and methodology of industrial economics; types of firms and forms of incorporation; structure; markets and competition(pricing, interdependence and non-price competition); growth of firm(horizontal and vertical integration), diversification; mergers and acquisition; innovation and technical change; investment decisions, risk and uncertainty; cost of capital and source of finance; industrialization in global context; the international debt crisis; case studies on industrialization in developed and Less Developed Countries (LDCs); technology and industrialization; nature and implications of the Export Processing Zones(EPZ);

industrialization and the environment; government objectives in industrial practices and policies in Nigeria.

### **ECN 798: RESEARCH PROJECT: 6 Units**

An independent study that helps to train students in the collection and analysis of data towards providing solutions to real economic problems in Nigeria. Knowledge of relevant economic theories and models is required plus the demonstration of creativity in coming up with solutions. The department must approve topics and the essay should be about 10,000 words.

## **GRADUATION REQUIREMENTS**

To qualify for graduation, a candidate must fulfill the following conditions to be awarded a Postgraduate Diploma in Economics.

Register and pass a minimum of 33 credit units of compulsory/required and elective courses as follows:

- |                      |    |
|----------------------|----|
| • Compulsory courses | 18 |
| • Electives          | 9  |
| • Project            | 6  |

Carry out and submit research project related to the area of specialization based on a topic approved by the Department and the Board of College of Postgraduate Studies within the specified period for graduation.

i. Obtain a minimum CGPA of 3.0 in all courses attempted

i. Satisfy all other requirements stipulated by the College of Postgraduate Studies

i. Minimum No. of years for graduation: 2 Semesters (4 Semesters Maximum for Full Time) and 4 Semesters and Maximum of 6 semesters for Part Time

i. Minimum CGPA for graduation: **3.0**

## **47.4. COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – MASTER of SCIENCE-MSC ECONOMICS**

### **OBJECTIVES**

The MSc degree in economics is designed for the use of advanced economic principles in the understanding of economics problems at all levels of analysis, and to equip aspiring economists in research, government and business with a range of skills for problem identification, problem conceptualisation, analysis, evidence-based policy design, policy implementation and review. More specifically, the objectives of the programme are:

- i. To develop highly competent versatile professional economists through the provision on relevant academic and professional courses which are required in order to meet the development challenges of the Nigerian economy in the context of globalization.
- ii. To rigorously train highly competent personnel for academic career and groom middle and top management personnel in the areas of energy and petroleum, manufacturing, industry, banking and finance.
- iii. To equip academic researchers and economic policy makers with the basic economic management tools needed for more scientific economic management decision making, and research
- iv. To provide the necessary training to enable further study at the doctoral level.
- v. To produce higher level economic management manpower capable of assuming executive position in government, finance, industry and other purpose-driven organisations driven by strong economic forecasting and planning

#### **47.5. ADMISSION REQUIREMENTS**

To qualify for admission to the MSc programme in economics, whether run on a part or full time basis, an applicant shall be required to fulfil the following entry conditions:

- i. Candidates must satisfy the matriculation requirements of CALEB University including credit passes in English Language and Mathematics.
- ii. Possession of Bachelor of Science degree in economics of CALEB University or of any other University recognized by the Senate of CALEB University with a minimum of second class lower or a CGPA of 3.00 on a five point scale.
- iii. Possession of PGD in cognate discipline with not less than upper credit.

- iv. Possession of Bachelor of Science degree in a cognate discipline with a minimum of second class lower or a CGPA of 3.00 on a five point scale, plus a Postgraduate Diploma in economics with not less than a credit level pass.
- v. Candidates who possess a 3<sup>rd</sup> class bachelor's degree in economics plus the Post Graduate Diploma of CALEB University in economics or cognate disciplines, or similar/equivalent Diplomas recognized by the Senate of CALEB University with not less than a credit level pass.
- vi. An acceptable level of "Pass" in any M.Sc. entry qualifying Examination conducted by the University.

#### **47.6. GRADUATION REQUIREMENTS**

To qualify for the award of an MSc degree in economics, a candidate must satisfy the following requirements:

- i. Pass a minimum of 36 credit units of prescribed courses consisting of:
    - 21 credit units of core economics courses including seminar
    - 12 units of elective courses
    - 6 units of Dissertation
  - ii. Obtain a minimum CGPA of 3.0 in all courses attempted
- i. Satisfy all other requirements stipulated by the College of Post Graduate Studies
- i. Minimum number of Earned Credit Hours for graduation: 39 units at 800 level
  - i. Minimum No. of years for graduation: 4 semesters full-time (2 academic sessions) and part-time 6 semesters

#### **47.7. Programme Courses, Structure, and Description**

Programme for Full-time M.Sc work on Economics consist of 3 Semesters of course work and 1 semester of dissertation writing. The following is the structure of the Programme over a 4-semester period.

**FIRST SEMESTER**

S/N	CODE	COURSE DESCRIPTION	UNIT	STATUS
1	ECN 801	Advanced Microeconomics	3	C
2	ECN 803	Econometrics	3	C
3	ECN 805	Quantitative Research Method	3	C
3 UNITS OF ELECTIVE				
4*	ECN 807	Agricultural Economics and Business	3	E
5*	ECN 809	Taxation and Fiscal Policy	3	E
6*	ECN 811	Financial Economics	3	E
TOTAL CREDIT UNITS			12	

\*Register only 3 units of elective.

**SECOND SEMESTER**

S/N	CODE	COURSE DESCRIPTION	UNIT	STATUS
1	ECN 802	Advanced Macroeconomics	3	C
2	ECN 804	Quantitative Research Method	3	C
3	ECN 806	Issues in Entrepreneurship	3	C
3 UNITS OF ELECTIVE				
4*	ECN 808	International Economics	3	E
5*	ECN 810	Monetary Theory and Policy	3	E
TOTAL CREDIT UNITS			12	

\*Register only 3 units of elective.

**THIRD SEMESTER**

S/N	CODE	COURSE DESCRIPTION	UNIT	STATUS
1	ECN 813	Seminar	3	C
6 UNITS OF ELECTIVE				
2*	ECN 815	Theories of Economic Development	3	E
3*	ECN 817	Health Economics	3	E
4*	ECN 819	Transport Economics	3	E
TOTAL CREDIT UNITS			12	

- Register only 6 units of electives.

#### **FOURTH SEMESTER**

S/N	CODE	COURSE DESCRIPTION	UNIT	STATUS
1	ECN 898	Research Project	6	C

#### **SUMMARY**

SEMESTER	COMPULSORY	ELECTIVE	TOTAL
First	9	3	12
Second	9	3	12
Third	3	6	09
Fourth	6	-	06
TOTAL	27	12	39

#### **47.8. COURSE CONTENT**

**ECN 801      Advanced Micro-Economic Theory**

Consumption and production choice theoretic structure, theory of firm, linear programming and application, theory of distribution, social welfare function, cost-benefit analysis, externalities, demand for and supply of factors of production, capital theory.

#### **ECN 802      Advance Macro-Economic Theory**

Concepts of income and output, macroeconomic aggregates, consumption and investment functions, capital analysis of Keynesian, monetary and Post-Keynesian theories, the demand for and supply of money and their impact on effectiveness of monetary and fiscal policies, inflation, growth theory, new directions of macroeconomic research to suit Nigerian conditions.

#### **ECN 805      Quantitative Research Method**

The research process, ethical considerations in research, quantitative methods: intervention research and non-intervention research, designs, validity research designs

#### **ECN 804      Qualitative Method**

Introduction: introduction to qualitative methods, philosophy of science, differences between qualitative versus quantitative approaches, mixed-methods; Observation and field notes: access and role of the researcher, field notes, sampling; Organization and analysis: recording data, organizing data, analysis of observational data; Interviewing; difference between structured and qualitative interview, interviewing versus observation, asking questions; Data analysis: content analysis, analytical induction, grounded theory

#### **ECN 806      Issues in Entrepreneurship**

Entrepreneurship and opportunity, entrepreneurial finance, building and leading a team, marketing and sales, product design and manufacturing, legal frameworks, buying a small business, managing a growing business

#### **ECN 803      Econometrics**

Econometrics defined, the two-variable regression model, static econometrics models, dynamic econometrics models, multiple-regression analysis, introduction to simultaneous equation models, Bayesian methods of econometrics, estimation and some tests of statistical hypotheses, econometrics and economic policy

#### **ECN 811      Petroleum and Energy Economics**

Theoretical issues in the economics of world energy demand and supply, petroleum in the international energy economy, economics of crude oil production, cost, refining and transportation, Political economy of oil, OPEC and the world, oil industry and OPEC, Petroleum and energy in the Nigerian economy. Theory of the firm: production, classical and other theories; Organization, structure, characteristics and role of the energy/petroleum/gas industries; its price and output determination, natural monopolies; externalities, environmental pollution problems of natural resource depletion and resource pricing; analysis of global institution; energy markets, supplies and other market institutions; energy policy formulation in Nigeria and others; Nigerian gas development, deregulation, liberalization, transmission, generation and distribution; management development and politics of energy; and international experience.

#### **ECN 815      Development Planning**

The planning problem, the planning process, quantitative planning techniques, investment choice, strategies and consistency test, balance in sectoral policies, efficiency in resources allocation, resources mobilization, manpower planning, plan implementation, planning experience in Nigeria, planning experience in selected developing countries.

#### **ECN 808      International Financial Systems**

Balance of payments concepts and measures, international monetary systems, floating as opposed to fixed rates, internal and external balance, monetary integration, foreign exchange markets, international liquidity and reform of international monetary system.

#### **ECN 810      Monetary Theory and Policy**

Role of money the economy, money and net wealth, the demand for and supply of money under equilibrium and disequilibrium conditions, the monetary approach to the balance of payments, high powered money, monetary policy, international monetary policy.

#### **ECN 815      Monetary and Financial Systems in Developing Countries**

Financial Institutions: Instruments, structure and development. Determination of financial structure and development. Non-financial issues of financial structure. Assets and liabilities of financial institutions. Development of financial institutions and economic growth. Determinants of demand for money in developing countries. Structure and development of

banking in Nigeria. Comparison of banking systems in selected advanced and developing countries.

#### **ECN 808      International Economics**

Theories of comparative advantages, reciprocal demand, terms of trade, growth and trades, commercial policy, and economic integration.

### **48.      COLLEGE of ARTS, SOCIAL and MANAGEMENT SCIENCES – M.Phil/PhD ECONOMICS**

#### **48.1.M.Phil/PhD (Economics)    WHAT ACADEMIC YEAR DID MPhil/Ph.D ECONOMICS COMMENCE**

The M.Phil. Programme is designed to meet the research needs of the candidates with the M.Sc. degree in Economics. It is intended to foster the development of independent research skills to enhance their ability to proceed to the Ph.D. degree programme. The M.Phil. Economics degree is mainly by course work and research activities. Research for this degree will be independently carried out by the candidates under the supervision of members of staff of the Department. The M.Phil. Programme is designed to give more basic research opportunities and more exposure to master-level course work and seminars to the prospective candidates. The programme is also designed to extend the frontiers of knowledge and making meaningful contributions to knowledge, particularly in the workings and applications of market-based economic system, which are areas of intense research and application activities worldwide. Through this programme, the much needed research and leadership personnel for academics, institutions, government and industry will be produced for national and international deployment.

#### **48.2    Ph.D. (Economics)**

The Ph.D. in Economics is a research degree which culminates in a unique thesis that demonstrates original and creative research. As a research-oriented degree, the Ph.D. in Economics prepares exceptional students for careers at the cutting edge of academia, industry, and government. Students are expected to demonstrate excellence in both defining and executing a substantial research project that forms a novel contribution to designing and implementing solutions to firm level, national and global economic problems. With a highly individualised programme of study, the degree provides students with depth in their chosen

research area coupled with a rigorous breadth of knowledge across the discipline. **The Ph.D. students also become visible members of the research community by publishing research outcomes and through oral presentations at conferences and research seminars.** Upon completing the Ph.D. programme, students are able to set their own research direction, teach and advise students, and work at the forefront of cutting-edge research in the academia, governments, or organisations.

#### **PROGRAMMES OBJECTIVES M.Phil. / Ph.D. (Economics)**

The specific objectives of the programmes are to:

- i. produce for the academia, business and the public sector employable graduates with strong critical and independent thinking skills distinguished for excellence in teaching, research, public policy, and management
- ii. offer a rigorous analytical programme with emphasis on the relationship of theory to practise and the development of simplified frameworks for studying the real world as academics, researchers, decision makers in industry and policy environments.
- iii. expose candidates to current researches methods, use of complex models and solution software, and sound economic decision making
- iv. provide and promote sound practical and theoretical training in the areas of problem identification, analysis, solution design and public policy management that will make the students useful in both private and public sectors.

#### **48.3. ADMISSION REQUIREMENTS Ph.D. (Economics)**

To qualify for admission to the Ph.D. Economics programme, whether run on a part or full time basis, an applicant must possess the following qualifications:

All candidates for admission into Ph.D. must:

- i. Possess Caleb University minimum requirement for a B.Sc. degree in Economics.
- ii. Submit Have obtained a Bachelor's degree from an approved university whose Economics Programme is accredited by NUC.

- iii. Have a minimum of a Second Class Lower degree in Economics.
- iv. Hold a Master's degree in Economics with a CGPA of at least 4.0 on a 5.0 point scale from Caleb University or any other University recognized by the Senate of Caleb University.
- v. Hold M.Phil. degree in Economics with a CGPA of at least 4.0 on a 5.0 point scale
- vi. Submit a brief satisfactory statement of intended area of research

#### **48.4. ADMISSION REQUIREMENTS M.Phil. (Economics)**

To qualify for admission to the M.Phil. Economics programme, whether run on a part or full time basis, an applicant must possess the following qualifications:

- i. Possess Caleb University minimum requirement for a B.Sc. degree in Economics.
- ii. Have obtained a Bachelor's degree from an approved university whose Economics Programme is accredited by the NUC.
- iii. Have a minimum of a Second Class Lower degree in the discipline.
- iv. Hold a Master's degree in Economics with a CGPA range of 3.00 – 3.99 on a 5.0 point scale or a weighted average of 55% - 59%
- v. Submit a brief satisfactory statement of intended area of research

#### **Expected Duration of the Programmes:**

Programme	Type	Minimum Period	Maximum Period
M.Phil./Ph.D.	Full-time	4 Semesters	6 Semester
	Part-Time	6 Semesters	8 Semesters
Ph.D. Direct	Full-time	4 Semesters	10 Semester
	Part-Time	8 Semesters	12 Semesters

#### **48.5. SELECTION PROCESS**

There will be a qualifying written examination for all candidates seeking admission into the postgraduate programmes in Economics of the University. Admission may be offered to all candidates satisfying the eligibility requirements subject to viable groups and availability of teaching facilities. Admission will be finally determined strictly by their performance in the examination.

#### **48.6. REQUIREMENTS FOR GRADUATION**

Conditions for the award of M.Phil. and Ph.D. in Economics are as follows:

**a. M.Phil. candidates not able to meet conditions for conversion to Ph.D.**

- i. 24 credit units for M.Phil./Ph.D. course work & seminars with not less than C grade or CGPA of 3.0
- ii. 12 credit units for Dissertation to be defended.
- iii. Complete Dissertation and same adjudged to be successful.

**Ph.D. (for candidates admitted into M.Phil./Ph.D.)**

- i. 18 credit units of course work with overall grade of not less than B grade or CGPA of 4.0.
- ii. 6 credit units of seminar papers preceding conversion.
- iii. Conversion seminar.
- iv. 2 Ph.D. seminar papers after conversion.
- v. Pre-field seminar.
- vi. Post-field seminar.
- vii. 12 credit units for Dissertation/Thesis to be defended.

#### **GRADUATION REQUIREMENTS**

- i. To qualify for the award of an PhD economics degree, a candidate must satisfy the following requirements:

- ii. Must have taken and passed a minimum of 18 credit units of course work, 6 units of seminar work and have a minimum CGPA of 4.0.
- iii. Defended a doctoral thesis of 12 units.
- iv. Satisfy all other requirements stipulated by the College of Postgraduate Studies.
- v. Minimum number of Earned Credit Hours for graduation: **36 UNITS**
- vi. Minimum No. of years for graduation:

**FULL TIME:** 6 Semesters (3 Academic Sessions)

**PART TIME:** 10 Semesters (5 Academic Sessions)

- vii. Minimum residency requirement in years, if any: ONE
- i. Minimum CGPA for graduation: **4.0 (Ph.D.)**

## **48.7 PROGRAMME COURSES, STRUCTURE & DESCRIPTION**

The M.Phil./Ph.D. programme is designed for either full-time or part-time study. Specifically, the course duration is as follows:

### **Course Structure**

- i. M.Phil. programme consists of course work and defended dissertation within a minimum period of 4 semesters for full-time students and a maximum of 6 semesters for part-time students.
- ii. Part-time students will normally spend additional 2 semesters over and above the duration of full time students (minimum of 6 semesters and maximum of 8 semesters).
- iii. Doctor of Philosophy (Ph.D. Economics) programme consists of course work, **two (3) graded seminars and defended Thesis**. The minimum duration is 6 semesters and maximum of 10 semesters for full-time students.

iv. Part-time students will normally spend a minimum of 8 semesters and a maximum of 12 semesters.

### **Courses and Description – M.Phil./Ph.D.**

#### **Programme Courses, Structure, and Description**

The courses required on the Full Time programme are listed on semester basis on the table below:

#### **Course Structure**

The Ph.D. programme requires a minimum of 36 credit units made up of 18 credit units of taught courses, 6 credits units of Seminar and 12 units for thesis made up as follows.

- Six courses (3 credits each) 18 units
- Two seminars in the areas of specialization 6 units
- Thesis 12 units
- **Total 36 units**

#### **FIRST SEMESTER**

CODE	DESCRIPTION	STATUS	UNITS
ECN 901	Advanced Microeconomics Theory and Applications	C	3
ECN 903	Advanced Research Methods I	C	3
ECN 905 – 909	A specialization course selected from the options on offer	E	3

#### **SECOND SEMESTER**

CODE	DESCRIPTION	STATUS	UNITS
ECN 902	Advanced Macroeconomics Theory	C	3

ECN 904	Advanced Research Methods II	C	3
ECN 906 – 909	A specialization course selected from the options on offer	E	3
<b>THIRD SEMESTER</b>			
CODE	DESCRIPTION	STATUS	UNITS
ECN 911	PhD Seminar I	C	3
ECN 913	PhD Seminar II	C	3
<b>FOURTH – SIXTH SEMESTERS</b>			
ECN 999	PhD Thesis	C	12
<ul style="list-style-type: none"> <li>All failed taught courses must have been passed before the approval of thesis proposal and commencement of thesis writing.</li> </ul>			

### Elective Courses

All candidates are required to take and pass one PhD elective course in his/her desired area of specialization which may include but not limited to any of the following:

- Economic Theory
- Industrial Economics
- International Economics
- Monetary Economics
- Finance & Public Sector Economics
- Development Economics
- Labour Economics
- Environmental Economics

- Health Economics
- Taxation and Fiscal Policy
- Operations Research
- Petroleum & Energy Economics
- Economic Planning
- Advanced Economics
- Mathematical Statistics
- Mathematical Economics

## **48.8. DESCRIPTION OF COURSES**

### **i.CORE COURSES**

#### **ECN 901: Advance Micro-Economic Theory and Applications**

Consumption and production choice theoretic structure, theory of the firm, linear programming and applications, theory of distribution, social welfare function, cost-benefit analysis, externalities, demand for the supply of factors of productions, capital theory.

#### **ECN 902: Advanced Macro-Economic Theory**

Concepts of income and output, macroeconomic aggregates, consumption and investment functions, critical analysis of Keynesian, monetarist and Post-Keynesian theories, the demand for, and supply of money and their impact on effectiveness of monetary and fiscal policies, inflation, growth theory, new directions of macroeconomic research to suit Nigerian conditions.

#### **ECN 903 & 904: Advanced Research Methods I & II**

Introduction to research methodology, research in social sciences, research problems in developing countries, common errors in research, data and data handling (primary and secondary), time series econometrics: assumptions, pitfalls, estimation techniques and diagnostics, results reporting and interpretation; research in practice; problem identification, research question and hypothesis formulation, literature review, selection of appropriate

estimation technique and application, economic discussion of results, summary, conclusion and recommendation.

### **ECN 911 & 913: PhD Seminar I & II**

Each seminar relates to an examination of current issues in the area of specialization in consultation with supervisor(s). Results of each examination shall be presented at the departmental or college PG seminars. Requirement of the doctoral seminar shall be at the recommendation of the supervisor and the approval Of the departmental PG committee.

### **ELECTIVES : ECN 905 - ECN 909)**

#### **Monetary and Financial Systems in Developing Countries**

Financial Institutions: Instruments, structure and development. Determination of financial structure and development. Non-financial issues of financial structure. Assets and liability of financial institutions. Development of financial institutions and economic growth. Determinants of demand for money in developed countries. Structure and development of banking in Nigeria. Comparison of banking systems in selected advanced and developing countries.

#### **Development Planning**

The planning problem. The planning process. Quantitative planning techniques Investment choice, strategies and consistency test. Balance in sectoral policies. Efficiency in resources allocation, Resource mobilization, manpower planning. Plan implementation. Planning experience in Nigeria. Planning experience in selected developing countries.

#### **Supplementary Mathematics**

Elementary concepts. Functions and diagram in economic theory. Functions and diagrammatic representation. Matrix algebra. Analytical Geometry, Limits and continuity of functions. Differential and integral calculus, Optimizations.

#### **Comparative Economic Systems**

Marxian ideals of development, free market system, mixed market economics; the Yugoslav, French, USSR, Japanese, Tanzania, Chinese, and Nigerian Experiences.

#### **Public Finance**

Fiscal functions, institutions and policies. Social goods and optimal distribution. Theory and empirical evidence on expenditure development. Theory and empirical evidence on tax structure. The changing function of fiscal policy and non-fiscal policy and economic revenue structures in selected countries. Federalism and fiscal adjustment theory and practice in selected countries.

### **International Financial System**

Balance of payments concepts and measures, international monetary systems, floating as opposed to fixed exchange rates, internal and external balance, monetary integration, foreign exchange markets, international liquidity and reform of the international monetary system.

### **Monetary Theory and Policy**

Role of money in the economy, money and net wealth, the demand for and supply of money under equilibrium and disequilibrium conditions, the monetary approach to the balance of payments, high powered money, monetary policy, international monetary policy.

### **International Economics**

Theories of comparative advantages, reciprocal demand, terms of trade, growth and trade, commercial policy, and economic integration.

### **Econometrics**

Econometrics defined, the two-variable regression model, static econometric models, dynamic econometrics models, multiple-regression analysis, introduction to simultaneous equation models, Bayesian methods of econometrics, estimation and some tests of statistical hypotheses, econometrics and economic policy.

### **Mathematical Economics**

Concept of Mathematical Economics, economic models, components of a mathematical model, types of functions, functions of two or more independent variables, equilibrium analysis in economics, linear models and matrix-algebra, concept of derivatives and economic application, optimization: equilibrium analysis, constrained optimization: Lagrange-multiplier method, Cobb Douglas function as a special case of the CES function, integrals and some economic applications, differential equations, simultaneous equations dynamic models, linear programming: Simplex method, input-output analysis and linear programming: Non-linear programming, game theory.

## **Financial Aspects of Development**

The financial constraint, sources of development finance-domestic services, domestic credit creation and limitations, governing surplus, foreign finance, the debt problem

At the completion of the seminars, the M.Phil./Ph.D. student can then proceed to present research conversion seminar for admission into the Ph.D. programme.

## **49. POSTGRADUATE DIPLOMA (PGD) PROGRAMME IN INTERNATIONAL RELATIONS**

### **PHILOSOPHY**

The main objective of the programme in International Relations is to produce knowledgeable individuals who have a firm grasp of the theories and concepts in the discipline which they can apply to come up with proper solutions to national and global issues.

### **AIMS and OBJECTIVES**

The objectives of the programme are to:

- a. To produce requisite manpower with necessary skills that can help in resolving international problems.
- b. To produce individuals who can contribute their quota to national development through the knowledge of international relations
- c. To raise up a crop of scientifically minded individuals who, with their knowledge of international relations theories, will become distinguished and sufficiently specialized in diplomacy and practice of foreign relations

### **49.1 ADMISSION REQUIREMENTS**

- a. Candidates must satisfy the matriculation requirements of the University, which is five (5) Ordinary level credits, including English Language at the Ordinary Level
- b. Candidates with, at least, 3rd Class Bachelor's degree in a relevant Social Science discipline or History from an accredited University
- c. Candidate with an approved qualification adjudged to be equivalent to a first degree

### **49.2 PROGRAMME STRUCTURE, COURSES AND COURSE DESCRIPTION**

#### **Course Duration**

The duration of the programme is two semesters made of course work only in the first semester and course work plus research project in the second semester. The choice of elective courses and the dissertation topic should reflect the student's area of interest.

#### **Degree Requirement**

A minimum of 32 credit hours/units are required to earn the Post Graduate Diploma in International Relations from Caleb University.

- General Courses 02 units
- Core/Compulsory Courses 15 units
- Electives 09 units
- Research Project 06 units

### Examination

- The minimum pass mark shall be 50% with Continuous Assessment and Final Examination constituting 30% and 70% respectively of the grading for each course.
- A minimum 80% class attendance is a pre requisite to sit for the end of semester examination in a course.
- Any student who fails in any course shall repeat the course.

Any student whose GPA falls below 2.00 in any semester shall withdraw from the programme.

### Available Courses

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>1<sup>st</sup> Semester</b>	<b>2<sup>nd</sup> Semester</b>
<b>GENERAL COURSES</b>			
<b>GNS 701</b>	Leadership Education	1	
<b>GNS 702</b>	Issues in Entrepreneurship		1
	<b>Sub Total</b>	<b>1</b>	<b>1</b>
<b>CORE/COMPULSORY COURSES</b>			
<b>INR 701</b>	International Politics	3	
<b>INR 702</b>	Nigerian Foreign Policy		3
<b>INR 703</b>	International Economic Relations	3	
<b>INR 704</b>	Comparative Strategic Studies		3

<b>INR 705</b>	Comparative Foreign Policy	3	
	<b>Sub Total</b>	<b>09</b>	<b>06</b>
<b>ELECTIVE COURSES</b> (Students are to choose 02 electives in the 1 <sup>st</sup> semester and 01 in the 2 <sup>nd</sup> )			
<b>INR 706</b>	Foreign Policies of the Francophone States of West Africa		3
<b>INR 707</b>	Theories and Practice of Diplomacy	3	
<b>INR 708</b>	New States in World Politics		3
<b>INR 709</b>	European Union and the World	3	
<b>INR 721</b>	Foreign Policies of the Great Powers	3	
	<b>Sub Total</b>	<b>06</b>	<b>03</b>
<b>INR 799</b>	Research Project		6
	<b>Sub Total</b>		<b>06</b>
	<b>TOTAL = 32 units</b>	<b>16</b>	<b>16</b>

### 49.3. COURSE DESCRIPTION

#### GNS 701 Leadership Education

#### GNS 702 Issues in Entrepreneurial Studies

#### INR 701 International Politics

A broad introduction to the study of international politics, significant themes and debates in the area of contemporary international affairs, origin of the contemporary international system; introduction to problems, dilemmas and puzzles in international politics. Theories of international relations; Actors in international politics. Mechanisms for maintaining international order. Development and underdevelopment in historical and comparative perspective.

### **INR 702 Nigerian Foreign Policy**

Basic principles underlying Nigeria's foreign policy, determinants of policy (domestic and external); the constitutional framework and governmental structure, official agencies that formulate policy; control and coordination of policy; mechanisms for implementation; Nigeria in international institutions; the making of Nigerian foreign policy – the role of political parties, the press, parliament, public opinion in the formulation of policy. The role of foreign service and the Federal Executive Council in the process, foreign and national defence, relations with major powers, impact of the changing international environment perceptions and attitudes to the challenges of the post-cold war order.

### **INR 703 International Economic Relations**

International economic institutions and their roles in international economic governance; the basics of international trade and World Trade Organization (WTO); development controversies in focus – International Monetary Fund (IMF) policies, structural adjustment, economic globalization in historical and contemporary perspectives, current debates about economic globalization. The acceleration of international economic integration after the end of the cold war. The politics of global trade money and finance, examines the connection between power and wealth, states and markets and economics and politics in the global system. The political underpinnings of the global economy as well as the influences that international economies has on national and international politics.

### **INR 704 Comparative Strategic Studies**

Understanding the development and conduct of modern warfare; analysis of contemporary strategic concepts – brinkmanship, containment, massive retaliation, flexible and gradual response, mutual assured destruction, compellence, saturation, escalation, etc. The evolution of strategic thought. Focuses on the traditional and contemporary use of organised force for political ends. The theory and practice of strategy; relevance of traditional and new thinking about strategy for understanding the complex issues of war and peace at the beginning of the 21<sup>st</sup> century. The historical and continuing role of military power in support of political ends. Adopted theories about peace and security which were developed during the cold war and development in strategic thinking and practice which have taken place since the end of the

cold war, including revolution in military affairs, information (cyber) warfare and space warfare

### **INR 705 Comparative Foreign Policy**

Origins and evolution of American, British, French, Russia, China and Canadian foreign policy in the 19<sup>th</sup> and 20<sup>th</sup> centuries. The domestic determination of foreign policy as well as the study of the national historical backgrounds of Britain, French, Russia, Canada, China and the United States. Analysis of case studies, including the Suez crisis, the war in Vietnam and other major international events. Development as nations and actors in a multi-national system, their political cultures and their decision making processes. The historical histories of Great Powers, comparative analysis of foreign policy of the Great Powers in a national context

### **INR 706 Foreign Policies of Franco Phone States of West Africa**

Comprehensive, cross national study of foreign policies of the francophone states in West Africa. Major developments in the foreign policies of the francophone states in West Africa after the end of the cold war; foreign policy adaptation of the francophone states in West Africa; relations between France and francophone states in West Africa. Political process of francophone states in West Africa, focus on the strategies devised by France to adapt to the rapidly changing landscape of the post-cold war era vis-à-vis the francophone states in West Africa. New challenges, the shifting landscape in policies of the francophone states of West Africa, contemporary foreign policies of francophone states in West Africa.

### **INR 707 Theories and Practice of Diplomacy**

The course provides practical and analytical insights into the problems and issues to do with organisation, representation, negotiation, treaties and multilateral diplomacy of states. It is concerned with the different ways in which states manage their foreign policy and conduct business internationally. Emphasis is laid on organisation of diplomacy, missions, trade and overseas representation, negotiation, bilateral and multilateral diplomacy and other international agreements; international conference diplomacy, GATT, G-77, G-7, IMF, etc.; international economic management, foreign policy problems of new states, diplomacy and international security and diplomacy of economic development.

### **INR 708 New States in World Politics**

Basic concepts in the analysis of changing relations between state, for example, perception and communication, dependence and independence, dynamics of binding ties, etc., examination of the cause and consequences of the collapse of imperial power, international class stratification (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> worlds) policy making in the context of underdevelopment, perception and orientations towards the external world, values, inequality, exploitation and justice in the international system. The third world in evolution, for example, challenges of the Asian Newly Industrialised Countries (NICs), prospects for a new International Political, Economic, legal and information order.

### **INR 709 European Union and the World**

Analyse the role of the European Union (EU) in wider European and international arenas, discuss European foreign policy – the creation of EPC in the 1970s, culminating in the EU's the Common Foreign and Security Policy (CFSP) as laid down in the Treaty on EU, EU relations with other major powers outside Europe. Europe relations with other major powers outside Europe. Europe relations with the developing countries of the world; International migrations and political refugees with specific focuses on European immigration policies.

### **INR 711 Foreign Policies of Great Powers**

The course is an examination of the foreign policies of the following countries: Britain, USA, France, Germany, China, Japan and Russia. Post 1945 period foreign policies of these nations would be examined. Attention would be focused on the dynamics of their foreign policies in the newly emerging international order. Machinery for foreign policy formulation, diplomatic formulation, diplomatic services and techniques. The politics of members of EU nations, the expansion of NATO to the former Eastern European nations, the collapse of the former USSR, etc. will be analysed. The following countries will be considered: USA, USSR (now Russia), China, United Kingdom (UK), France, Germany and Japan

### **INR 799 Research Project**

Student will undertake research into a topic related to his area of interest and produce a research project under the supervision of a Project Supervisor with relevant experience in the student's area of research.

## **50. MASS COMMUNICATION**

<b>Department</b>	<b>Degree</b>	<b>Minimum</b>
Mass Communication	Post Graduate Diploma	2 Semesters
Mass Communication	Master of Science	4 Semesters
Communication and Media Studies	Master of Philosophy	4 Semesters
Communication and Media Studies	Doctor of Philosophy	6 Semesters

<b>PROGRAMMES</b>	<b>DURATION</b>	<b>COURSE</b>	<b>LOAD</b>	<b>TOTAL</b>
		<b>Course Units</b>	<b>Dissertation/Thesis</b>	
<b>Post Graduate Diploma</b>	2 Semesters	24	6	<b>30</b>
<b>Master of Science</b>	4 Semesters	27	6	<b>33</b>
<b>Master of Philosophy</b>	4 Semesters	24	6	<b>30</b>
<b>Doctor of Philosophy</b>	6 Semesters	12	<b>6</b>	<b>18</b>

## **1. PROGRAMMES OFFERED**

1. Postgraduate Diploma (PGD)
2. Master of Science (M.Sc.)
3. Master of Philosophy (M.Phil.)
4. Doctor of Philosophy (Ph.D.)

## **1. AVAILABLE OPTIONS/SPECIALISATION**

- i. Public Relations and Advertising
- ii. Broadcasting
- iii. Journalism
- iv. Film/Cinematography

v.Development Communication

vi.Behaviour Change Communication

vii.Media Studies

## **51 POSTGRADUATE DIPLOMA (PGD) PROGRAMME IN MASS COMMUNICATION**

**DURATION: TWO (2) SEMESTERS**

**FIRST SEMESTER(FULL TIME)**

<b>S/N</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>UNITS</b>	<b>STATUS</b>
1.	MAS 701	Introduction to Mass Communication	2	C
2.	MAS 703	News Reporting & Writing	2	C
3.	MAS 705	Principles of Broadcasting	2	C
4.	MAS 707	Radio & TV Script Writing	2	C
5	MAS 709	Editing Techniques	2	C
6	MAS 711	Principles of Advertising	2	C
7.	MAS 713	History of the Mass Media	2	C
8.	MAS 715	Mass Communication Law & Ethics	2	C
9	MAS 717	Techniques of Social Science Research	2	C
<b>TOTAL</b>			<b>18</b>	

**SECOND SEMESTER (FULL TIME)**

<b>S/N</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>UNITS</b>	<b>STATUS</b>
1.	MAS 702	Communication for development	2	C
2.	MAS 704	Editorial Writing & Specialized Reporting	2	C
3.	MAS 706	Radio/TV Production	2	C

4.	MAS 708	Print Production	2	C
5.	MAS 710	Documentary Film Production	2	C
6.	MAS 712	Advert Copy and Layout	2	C
7.	MAS 714	Public Relations Strategies	2	C
8.	MAS 788	Project Report	6	C
<b>TOTAL</b>			<b>20</b>	

#### **FIRST SEMESTER (PART TIME) FIRST SESSION**

<b>S/N</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>UNITS</b>	<b>STATUS</b>
1.	MAS 701	Introduction to Mass Communication	2	C
2.	MAS 703	News Reporting & Writing	2	C
3.	MAS 705	Principles of Broadcasting	2	C
4.	MAS 707	Radio & TV Script Writing	2	C
5.	MAS 709	Editing Techniques	2	C
6.	MAS 711	Principles of Advertising	2	C
<b>TOTAL</b>			<b>12 UNITS</b>	

#### **SECOND SEMESTER (PART TIME) FIRST SESSION**

<b>S/N</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>UNITS</b>	<b>STATUS</b>
1.	MAS 702	Communication for Development	2	C
2.	MAS 704	Editorials Writing and Specialized Reporting	2	C

3.	MAS 706	Radio/TV Production	2	C
4.	MAS 708	Print Production	2	C
5	MAS 710	Documentary Film Production	2	C
<b>TOTAL</b>			<b>10 UNITS</b>	

### **THIRD SEMESTER (PART TIME) SECOND SESSION**

<b>S/N</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>UNITS</b>	<b>STATUS</b>
1.	MAS 712	Advert Copy and Layout	2	C
2.	MAS 713	History of Mass Media	2	C
3.	MAS 714	Public Relations Strategies	2	C
4.	MAS 715	Mass Communication Law & Ethics	2	C
5.	MAS 717	Techniques of Social Science Research	2	C
6.	MAS 788	Research Project Report	6	C
<b>TOTAL</b>			<b>16 UNITS</b>	

#### **51.1 COURSE DESCRIPTION**

##### **MAS 701 Introduction to Mass Communication (2 units)**

It is designed to initiate convert-students' into the discipline and re-enforce the fundamental ideas of those candidates whose understanding of the dynamics of mass communication during their earlier encounter is inadequate. It is a survey and analysis of major concepts and principles of mass communication and their application to contemporary social

problems. Briefly, it evaluates media operations, professionals, practitioners and their use of the mass media for varied purposes in contemporary society.

**MAS 702      Communication for Development      (2 units)**

This is a course on the developmental role of the mass media in contemporary setting. It is an understanding of relationship between the mass media and the society within which the media operate. It will examine the meaning of development and paradigm shift in the conceptualization of the relationship between communication and development, theories of social change, media of development communication, theories of attitude and behavioural change communication, the planning and execution of development communication campaigns in such areas as health, agriculture, etc.

**MAS 703      News Reporting and Writing      (2 units)**

It provides a “conversion” to mainstream mass communication for graduates of other disciplines. It introduces candidates to the principles and skills of effective news reporting and journalistic writing. Students are led to understand and appreciate the nature of news, and develop writing skills and confidence in news reporting.

**MAS 704      Editorial Writing & Specialized Reporting (2 units)**

This course is designed to provide instruction in the techniques of reporting specialized subjects such as agriculture, government and politics, medicine, religion, sports, labour, the courts, the arts and such specialized sectors of the polity. It exposes students to the fundamental strategies of editorial writing and it stresses a combination of analysis and practice in writing on specialized themes.

**MAS 705      Principles of Broadcasting      (2 units)**

This is a focus on developmental phases of broadcasting as well as a survey of scientist involved in the evolution. It embodies also description of some individual equipment used in broadcasting and how broadcasting relates with other aspects of life.

**MAS 706      Radio/TV Production      (2 units)**

This is a systematic analysis of basic technological elements of radio and television studio/control room and the nature of sound. It involves practical exercise in studio, standard operating procedures and use of studio facilities, analysis, of the techniques of managing a broadcasting studio, outside broadcasting, and practical daily management of broadcast stations, involving programme planning/scheduling, traffic control, and personnel management.

**MAS 707      Radio/TV Script Writing      (2 units)**

This is an introductory course in the pre-production and actual production of radio and television programmes utilizing the full facilities of the university studios. Students will acquire knowledge and, skills required to produce programmes for both radio and television. Practical demonstrations characterize this course in orientation in broadcast programme productions.

**MAS 708      Print Production      (2 units)**

This introduces students to the publishing process, and examine; Publishing as a cultural activity, and as a viable business in contemporary society. It analyses publication as a mass industry organized in divisions. Students acquire knowledge and skills in publishing newspapers, journals, magazine and books.

**MAS 709      Editing Techniques      (2 units)**

This is an introduction to the techniques of editing. This course explores the creativity, development and editorial techniques used in both print and electronic media. Students are involved in intensive editing exercises, edit copy in a style appropriate to the news media.

**MAS 710      Documentary Film Production      (2 units)**

It is an analytical approach to documentary film production. It examines various forms of documentaries with emphasis on film. Students combine analysis with practical workshop in producing documentary films in specific areas of life.

**MAS 711      Principles of Advertising      (2 units)**

This is designed to acquaint students with basic advertising principles, copy design and layout for print advertisement. It equally examines the media of advertising and special techniques in radio/TV commercials. It analyses laws and ethics related to advertising.

**MAS 712      Advert Copy and Layout      (2 units)**

This course is designed to enable the student know how to design and write an Ad copy and the principles involved for the various media –print, broadcast, film, direct mail and the internet. Students will produce. It also highlights the place and importance of copy and layout design. On completion, students will be able to produce written advert copy in the various medium.

**MAS 713      History of the Mass Media      (2 units)**

This is a historical survey or the growth and development of Mass Communication globally. It is a comprehensive analysis of major trends in mass communication in Nigeria, West Africa and African continent.

**MAS 714      Public Relations Strategies      (2 units)**

This is an analysis of strategies for public relations practice in contemporary setting. This course is an in-depth analysis or important social problems commonly found in industrial society, public and private responses to these problems and the effectiveness of different types of approach and intervention.

**MAS 715      Mass Communication Law & Ethics      (2 units)**

This is a study of communication laws, constitutional guarantees, libel, privacy, contempt, censorship and pornography, privilege and copyright Act. This course analyses the responsibilities of the journalist in the media, including evaluating potential news material and programme content, with education, and freedom of the press.

**MAS 717      Techniques of Social Science Research      (2 units)**

It provides for intensive study of mainstream social science research method. Its objective is to equip students with adequate knowledge and skills in social research methodology, to train

them to identify researchable problems and develop research questions or hypotheses. The course will also involve a detailed treatment of methods of collecting relevant research data, the format for presenting research frontiers and involves them in understanding and explaining some recent work.

### **MAS 788 & MAS 799          Research Project Report      (6 units)**

This segment provides students the needed opportunity to demonstrate their understanding of theoretical, empirical and practical instructions in various sectors of mass communication through supervised execution or research project. Students are will be expected to produce an acceptable first hand study of an approved topic under the supervision of supervisor.

## **52. MASTERS OF SCIENCE (M.Sc.) PROGRAMME IN MASS COMMUNICATION**

### **Programme Courses, Structure and Description**

The courses required on the programme are classified into three categories. The first category consists of the basic areas of Mass Communication: journalism, broadcasting, public relations/ advertising. The second category consists of core/optional courses while the third is made of specialization courses. Each course carries 3 credit units.

### **Programme for the Full-time M.Sc. MASS COMMUNICATION**

#### **FIRST SEMESTER (Full Time)**

#### **COMPULSORY CORE COURSES**

<b>COURSE</b>	<b>COURSE TITLE</b>	<b>UNIT</b>	<b>STATUS</b>
MAS 801	Communication Theories	3	C
MAS 803	Bibliography of Mass Communication	3	C
MAS 805	Application of Research Methods in Mass Communication	3	C
MAS 807	Topical Seminar in Mass Communication	3	C

#### **SPECIALIZATION**

**A. PRINT JOURNALISM**

<b>COURSE</b>	<b>COURSE TITLE</b>	<b>UNIT</b>	<b>STATUS</b>
MAS 811	Editorial Writing	3	R
MAS 833	Newspaper/Magazine Organization Management and Production	3	R
MAS 835	Interpreting Urban Problems	3	R
MAS 837	Public Affairs Reporting	3	E
MAS 839	Magazine Article Writing	3	E

**B. BROADCAST/FILM/CINEMATOGRAPHY**

<b>COURSE</b>	<b>COURSE TITLE</b>	<b>UNIT</b>	<b>STATUS</b>
MAS 809	Station Operation and Management	3	R
MAS 813	Topical Seminar and Issues in Broadcasting	3	E
MAS 815	Electronic News	3	E
MAS 817	Advanced Production Techniques (Radio)	3	R

**C. ADVERTISING AND PUBLIC RELATIONS – (PRAD)**

<b>COURSE</b>	<b>COURSE TITLE</b>	<b>UNIT</b>	<b>STATUS</b>
MAS 825	Creative Workshop in PRAD	3	R
MAS 827	Ethics and Social Responsibility in PRAD	3	E
MAS 829	Environments of PR	3	E
MAS 831	Advertising and Consumer Behaviour	3	E
MAS 841	Brand Building and Management	3	E

**SECOND SEMESTER (Full Time)**

<b>COURSE</b>	<b>COURSE TITLE</b>	<b>UNIT</b>	<b>STATUS</b>
MAS 802	Communication for Development	3	C
MAS 804	Quantitative Research Methods	3	C
MAS 806	Seminars in Mass Media and National Security	3	C
MAS 888	Dissertation	6	C

## **SPECIALIZATION**

### **A. PRINT JOURNALISM (News Editorial)**

<b>COURSE</b>	<b>COURSE TITLE</b>	<b>UNIT</b>	<b>STATUS</b>
MAS 828	Newspaper/Magazine Problems	3	R
MAS 830	Communication and Public Health	3	R
MAS 832	Sports Reporting	3	E
MAS 834	Critical Review and Community/Rural Journalism	3	E
MAS 836	Advanced Precision Journalism	3	E
MAS 826	Specialized Publications	3	E
MAS 828	Science News Reporting	3	E
MAS 830	Community/Rural Journalism	3	E

### **B. BROADCAST/FILM/CINEMATOGRAPHY**

<b>COURSE</b>	<b>COURSE TITLE</b>	<b>UNIT</b>	<b>STATUS</b>
MAS 810	Advanced Production Techniques (TV and Film)	3	R
MAS 812	Educational Broadcasting	3	R
MAS 814	Announcing and Performance	3	E

MAS 816	Docu-Drama Techniques and Production	3	E
MAS 832	Film Directing and Production Management	3	E

### **C. ADVERTISING AND PUBLIC RELATIONS – (PRAD)**

<b>COURSE</b>	<b>COURSE TITLE</b>	<b>UNIT</b>	<b>STATUS</b>
MAS 818	Advertising, PR and Society	3	R
MAS 820	Media and Community Relations	3	E
MAS 822	Management and Marketing Principles in PRAD	3	E
MAS 824	Creative Visual Message Design	3	E
MAS 826	International Public Relations	3	E
MAS 838	Integrated Marketing Communication	3	E
MAS 840	Media Workshop in PRAD	3	E

## **52.1. COURSE DESCRIPTION**

### **MAS 801      Communication Theories**

This course focuses on the historical perspective of the theories behind mass communication. In this course the student will explore successful communication strategies and develop the theoretical foundation needed to understand mass media communication (both audience and media effects) and to conduct effective communication research in the real world.

### **MAS 802      Communication for Development**

This course aims at deeper appreciation and understanding of the principles that led Development Communication as a concept. Aside looking at the present state of arts in the area of development communication, wider areas that relates to the aspect of development within the framework of the global community will generally be looked at and well discussed.

### **MAS 803      Bibliography of Mass Communication**

The course examines different historical perspectives of different scholars about topical issues in society. It critiques their perspectives and discusses the relevance and accuracy of their views in present day society.

### **MAS 804 Quantitative Research Methods (2) Statistics Department**

Students in this course will gain a working undertaking of the rationale for the use of a variety of quantitative research methods and become familiar with the design, constraints and appropriate application of those most frequently used in the applied behavioural and social sciences. They will gain experience designing and conducting research through a blend of class exercises and field research applications. Students will also gain a basic familiarity with the use of tools such as the Statistical package for the Social Sciences (SPSS) to analyze the data gathered through quantitative research. Finally, through classroom instruction coupled with a process for writing, revising and individual consultation with the instructor regarding their research reports, students will master APA style and develop academic and professional writing skills including critical thinking and conceptualization in addition to the basics such as spelling and grammar where necessary.

### **MAS 805 Application of Research Methods to Mass Communication**

Method aims to provide advanced training in research methods across the full range of the social sciences. Students are provided with a thorough theoretical and practical knowledge of how to construct effective research studies of the variety of data collection methods available to the social scientist and of the principal methods of analyzing social scientific data. They are also introduced to the political and ethical frameworks within which social science research is conducted, and to some of the ways in which the results of social science research are disseminated.

### **MAS 806 Seminar in Mass Media and National Security**

This course will look at the position played by the mass media in national security. The part played by the mass media as the fourth estate of the realm in addressing issues on national security are to be comprehensively discussed vide seminar series to be organized.

### **MAS 807 Topical Seminar in Mass Communications**

It is a seminar applying historical and theoretical perspective to current issues and developments in mass communications. The mass communication system in Nigeria in comparison with more developed countries will be examined in terms of its basic philosophical and legal assumptions and the current political, cultural, sociological and psychological theories relating to the process and effects of mass communication.

#### **MAS 809      Station Operation and Management**

This course will provide students with the knowledge and skills of Radio and TV management and programming through exposure to both theory and practice. It will examine broadcast media organizational structure and their relationships with employee functions and roles. It will also expose students to financial management, sales, promotion, marketing, audience research methods and broadcast media regulation.

#### **MAS 810      Advanced Production Techniques (TV and Film)**

Brief Introduction to the technical term in production e.g frame sequence, shot- timing etc; Non-dramatic production e.g. social events, sporting events, approach in non-dramatic, single or multiple; camera set-up, one and two camera set-up and three camera set-up; stages/steps in both Film and TV Production; issues in Film and TV Production; financing in Film and TV production, violence in Film and TV production, and sex abuse in Film and TV production. Training is given in the advanced form of single camera shooting, lighting, editing, and audio production. The direction and production of advanced types of programs are taught and practiced. Students learn how to produce and edit programmes.

#### **MAS 811      Editorial Writing**

This course focuses on editorials, opinion pieces and reviews that explore all aspects of the human existence for print and online media. As the link that binds this type writing is the desire to persuade the reader, major topics covered and strategies for finding editorial and column ideas, researching ideas, locating credible sources, persuasion techniques, establishing an effective style and tone, and writing for diverse audiences (understanding of the readers very key). The end goals to enable the students gain an understanding of contemporary social professional and intellectual concerns in the practice of journalism.

#### **MAS 812      Educational Broadcasting**

This course is designed to ingrain into students instructional stimuli in the formal and non-formal setting broadcasting. It shall include use of broadcasting for literacy, vocational skills, science and technology, junior and senior secondary education as well as instruction education at the tertiary level.

### **MAS 813      Topical Seminar and Issues in Broadcasting**

Understanding the Development of Broadcasting in Nigeria; Broadcasting in Colonial, Military and Democratic Era; Theories of the Press; The Concept of NTA/NBC/FRCN; Origin and Growth of Private broadcasting in Nigeria; Regulation Deregulation of Broadcasting; NBC, Decree, structure /Mgt./Codes; Content Specification/ Licensing; Foreign and External Broadcasting; An Appraisal; Cable Broadcasting; An Holistic Appraisal of Broadcasting on Nigeria; Audience of Broadcast Media; Broadcast Use and Gratifications; Evaluation of the Performance of the Broadcast Industry in Nigeria and Roadmaps into the future.

### **MAS 814      Announcing and Performance**

Exposure to the fundamentals of voicing and the nature of speech are the major focus of this course. It involves also the review of performance techniques with regard to the microphones and camera, as well as an understanding of performance personnel; the actor, the announcer, the disk jockey, the news reporter, the interviewer, the master of ceremony and the narrator. Practical exercises in the various roles are also included in the coursework.

### **MAS 815      Electronic News**

This course is designed to provide a substantial background in video production techniques coupled with electronic newsgathering and the use of video equipment. Although students enrolled in this course would be expected to have a basic understanding of video production from previous courses, more advanced editing techniques, along with sustained practice in interviewing, taping, organizing and writing various types news and feature packages, should provide an excellent preparation for subsequent internships or employment. This is a “hand-on” course and will provide extensive opportunities for practical application of material covered in class. Students will be evaluated on the quality of their productions.

### **MAS 816      Docu-Drama Tech. and Production**

History of Drama; Radio Drama- dialogues and narrative techniques; Drama Sketches as play lets casting for Radio; Sound Perspectives and Sound Effects in Radio Drama; Editing Radio

Drama; Auditing of Television Drama; Drama performance for Television; Locating Television Drama in time and concurrent situation; Props and Sets for Television; Drama; Equipment for Television Drama; Stages in Television Drama; Costuming; Lighting Rehearsals in Television Drama Series and Serials in Television Drama; Video Drama as Advanced Television Directing; Post Production Work; Video Drama Distribution and Financing Agreements and Evaluation in Video Drama.

#### **MAS 817      Advanced Production Techniques (Radio)**

This course involves systematic analyses of Radio studio/control room, technology and the nature of sound. The course also examines stages in Radio production planning, recording, editing and distribution. A Radio production of 30 minutes or more is expected to a part of the course.

#### **MAS 818      Advertising, Public Relations and Society**

Exposes students to the broader view of the concepts of advertising and public relations as they both affect the development and advancement of a society.

#### **MAS 820      Media and Community Relations**

This course is an exposition of the application of public relations through the media to keep relevant publics informed about actions of organizations and governments.

#### **MAS 822      Management and Marketing Principles in PRAD**

This course will study the principles of advertising and PR as communication tools which can be used to manage and market or promote a product, person, an organisation or idea. The art and science of marketing will be reviewed as the bases for determining the needs and types of communication solutions, which can effectively deal with marketing problems in different situation.

#### **MAS 824      Creative Visual Design**

The significance of being able to complement graphic design, identity design and branding of original, imaginative, inventive and visionary designs in the process of defining what goes into a brand's unique style and voice are to be studied. Students would be trained to be able to explain design concepts and the decisions behind it.

### **MAS 825 Creative Workshop in Advertising & Public Relations**

This course focuses on topical issues in the advertising and public relations industry and the strategies, tools and tactics for reaching their publics.

### **MAS 826 International Public Relations**

The course is an advanced analysis of trends, issues and problems confronting public relations departments in multinational corporations, other organizations involved in international trade and business and relationships between the countries in the global community.

### **MAS 827 Ethics and Social Responsibility in PRAD**

The course will be focusing on the ethical theory of accountability towards the fulfilment of civic duties by organizations and the government to their publics. Students would be expected to come up with ethical and social responsibility positions to bring about economic growth and an improvement on the welfare of society and the environment.

### **MAS 828 Newspaper and Magazine Problems**

This course will first re-examine students' acquired knowledge of the technique of newspaper and magazine production. Thereafter, major and minor problems being faced by the Newspaper and Magazine industry especially with the introduction of new communication technology in planning and editing and production will be deeply emphasized.

### **MAS 829 Environments of Public Relations**

This course would majorly focus extensively on the practice of public relations within the ambit of both internal and external environment of private organizations and the government organizations.

### **MAS 830 Communication and Public Health**

This is an advanced for of health communication. The essence is to catalyze the acceptance and adoption of various publics of health initiatives designed to improve health indicators across the population of the structure, internal dynamics and function of the News and Current/Public affairs division of broadcasting organizations and the print journalism medium. Interpretative reporting of government affairs and production of current/public affairs

discussion, news magazines and documentary programmes are taught. Students will be required to produce programmes in fulfillment of the requirements of the course.

### **MAS 831      Advertising and Consumer Behaviour**

The course would focus on the methods of understanding the nature of the consumer and the market-place. Demonstrates how appropriate advertising policies and programmes can prevent or help solve consumer problems; covers the consumer movements and their impact on the market place and how to work with consumer advocates for the benefit of organizations. It will discuss how to understand the changing trends and psychosocial and demographic profile of consumer tastes, preferences, motivation, media consumption habits. The course will be approached mainly from an Advertising perspective. An electronic bulletin will be produced.

### **MAS 832      Sports Reporting**

The course is designed to equip the student with the basic knowledge of how to analyse and interpret the various sporting activities. It teaches the student literary techniques and figures of speech which enrich sports stories.

### **MAS 833 Newspaper/Magazine Organization Management & Production**

The course is design to impart to the students the knowledge of the principles and techniques as well as the practical skills required to work within the newspaper and magazine industries especially using ICT. It explores the production process involved in birthing a newspaper and magazine in Nigeria as well as global best practices, the personnel involved and their roles, the various factors that influence their activities in and outside the newsroom. It also covers ethical issues.

### **MAS 834      Critical Review and Community/Rural Journalism**

A more advanced form of taking critical review of developments within our society which enhances the students' ability to provide sound and logical interpretation of rural and community developments being looked at. It intends to amplify the essence of rural and community journalism to foster development in our society.

### **MAS 835      Interpreting Urban Problems**

The objective of the course is to teach students the importance and techniques in gathering information for interpretative news and features stories in urban areas.

### **MAS 836      Advanced Precision Journalism**

The objective of the course is to explore an advanced form of the application of social science research methods to the practice of gathering information for the news purposes of journalists.

### **MAS 837      Public Affairs Reporting**

The course explores the structure, dynamics and functions of news and public affairs department of government, international organizations or private settings. It also examines investigation and interpretation reporting of public institutions, agencies and the government. It expects the student to produce current report through news magazine, newspaper article and journal. Public affairs reporting also includes: in-depth interviews through group discussions and activities.

### **MAS 838      Integrated Marketing Communications**

This course will study the coming together of different communication elements in a disciplined and focused campaign. The essence is to emphasize the integrated effect of Public Relations, Publicity Corporate, Advertising, Promotion, Events Marketing, Product Advertising as well as Personal and Experiential Marketing in campaign and communication programmes. The power of integration in the various media shall also be studied.

### **MAS 839      Magazine Article Writing**

This course aims to equipment students on how to write feature articles for magazines. The student is required to understand explanatory and interpretative writing. The course stresses human interest angle which goes beyond the spot event

### **MAS 840      Media Workshop in Advertising & Public Relations**

The Course focuses on media strategies and tools for partnering with the advertising and public relations industry in order to reach their publics.

### **MAS 854      Advanced Precision Journalism**

The course covers the application of social and behavioural science research methods to the practice of journalism. The course demonstrates the applicability of social science research methods to the very real problems of newsgathering in an increasingly complex society. The

tools of sampling, computer analysis, and statistical inference increase the traditional power of the reporter without changing the nature of his or her mission – to find the facts, to understand them, and explain them without wasting time.

#### **MAS 864      Brand Building and Management**

This course shall focus on turning a product into a brand. It shall dwell on the trouble-shooting and coordinating roles of the Brand Manager. The interrelationships between Research and Development, Formulation/Packaging, Production, Sales, Marketing and Production shall be explored. The course shall also look at competitive strategies in a fierce marketing environment. In this course, students will know how to create a winning brand and sustain it at the tip top.

#### **MAS 868      Film Directing and Production Management**

The Auteur Film Theory shall be revisited and applied here. Directing shall be studied as an art, craft, science and profession. Students will understand how to choose, read and interpret scripts. Working with actors and actress to generate intensity and believability shall be stressed. The management of space, man, money and materials shall be emphasized. Would-be directors shall go through challenges/solutions at the developmental stage, pre-production, production and post-production. Half of this course shall be project/field-based.

#### **MAS 888 and MAS 898      Dissertation**

The expectation here is higher than what obtains at the first degree level. Graduate students will each initiate and execute a scientific research of a publishable quality. Originality, depth, veracity and discipline are emphasized. Every student will be supervised by a lecturer who has knowledge in the particular area being investigated.

### **52.2. M.Sc. PART TIME COURSE WORK 1<sup>ST</sup> SEMESTER**

#### **FIRST SEMESTER (Part Time) First Session**

MAS 801	Communication Theories
MAS 803	Bibliography of Mass Communication
MAS 805	Application of Research Methods to Mass Communication
MAS 811	Editorial Writing
MAS 809	Station Operation and Management

MAS 827 Ethics and Social Responsibility in PRAD

**SECOND SEMESTER (Part Time) First Session**

MAS 807 Topical Seminar in Mass Communications

MAS 802 Communication for Development

MAS 804 Quantitative Research Method

MAS 835 Interpreting Urban Problems

MAS 817 Advanced Production Techniques (Radio)

MAS 825 Creative Workshop in Advertising & PR

**THIRD SEMESTER (Part Time) Second Session**

MAS 806 Seminar in Mass Media and National Security

MAS 828 Newspaper/Magazine Problems

MAS 832 Film Directing and Production Management

MAS 820 Media and Community Relations

MAS 832 Film Directing and Production Management

MAS 898 Dissertation

**A total of 30 units to be passed.**

**Specialization Courses**

**Advertising and Public Relations**

Integrated Marketing Communications

Advert Copy and Layout

Creative Workshop in Advertising & PR

Media Workshop in Advertising & PR

Brand Building and Management

**Broadcasting/Film and Cinematography**

## Station Operation and Management

Electronic News

Advanced Production Techniques (TV/Film)

Film Directing and/Production Management

## **Print Journalism**

Editorial Writing

Advanced Precision Journalism

Newspaper/Magazine Management & Production

## **General Courses in Mass Communication**

Communication Theories

Bibliography of Mass Communication

Application of Research Methods to Mass Communication

Topical Seminar in Mass Communication

Communication for Development

Quantitative Research Method

Seminar in Mass Media and National Security

The M.Sc. programme is expected to last a minimum of three semesters for full-time students, and four semesters for part-time students.

## **53. M.Phil. /PhD PROGRAMMES PHILOSOPHY**

### **53.1. M.Phil. (Communication and Media Studies)**

The M.Phil. Programme is designed to meet the research needs of the candidates with the M.Sc. degree in Mass Communication. It is intended to foster the development of independent

research skills to enhance their ability to proceed to the Ph.D. degree programme. The M.Phil. Communication and Media Studies degree is mainly by course work and research activities in Communication and Media Studies. Research for this degree will be independently carried out by the candidates under the supervision of members of staff of the Department. The M.Phil. Programme is designed to give more basic research opportunities and more exposure to master-level course work and seminars to the prospective candidates. The programme is also designed to extend frontiers of knowledge and making meaningful contributions to knowledge, particularly in communication and media studies, which are areas of intense research and application activities worldwide. Through this programme, much needed research and leadership personnel for academics, institutions, government and industry will be produced for national and international deployment.

### **53.2. Ph.D. (Communication and Media Studies) WHEN DID IT COMMENCE**

The Ph.D. in Communication and Media Studies is a research degree which culminates in a unique thesis that demonstrates original and creative research. As a research-oriented degree, the Ph.D. in Communication and Media Studies prepares exceptional students for careers at the cutting edge of academia, industry and government. Students are expected to demonstrate excellence in both defining and executing a substantial research project that forms a novel contribution to the state of the art in communication. With a highly individualised programme of study, the degree provides students with depth in their chosen research area coupled with a rigorous breadth of knowledge across the discipline. The Ph.D. students also become visible members of the research community by publishing research and through oral presentations at conferences and research seminars. Upon completing the Ph.D. programme, students are able to set their own research direction, teach and advise students, and work at the forefront of cutting-edge research in academia or within the communication and media industries.

### **53.3. PROGRAMMES OBJECTIVES**

#### **53.4.M.Phil. (Communication and Media Studies)**

The specific objectives of the programmes are to:

- i.expose candidates to current researches and methodological models particularly in the Communication and Media Studies areas which are areas of intense research and application activities worldwide;
- ii.provide and promote sound practical and theoretical training in the areas of communication and media studies that will make the students useful in both private and public sectors of the communication and media environment; enable candidates to identify communication and media related problems and proffer recommendations and strategies for their solutions, and
- iii.develop in candidates the mastery of appropriate skills to articulate a critical analysis of advanced studies in communication and media environment.

### **53.5. Ph.D. (Communication and Media Studies)**

The objective of the Ph.D. in Communication and Media Studies programme is to educate highly qualified researchers required for the expansion of fundamental knowledge and communicative and media innovation through research and development, as well as the needs of institutions of higher learning.

### **53.6.Expected Duration of the Programmes**

<b>Programme</b>	<b>Type</b>	<b>Minimum Period</b>	<b>Maximum Period</b>
<b>M.Phil./Ph.D</b>	Full-Time	4 semesters	6 semesters
	Part-Time	6 semesters	8 semesters
<b>Ph.D Direct</b>	Full-Time	6 semesters	10 semesters
	Part-Time	8 semesters	12 semesters

### **Requirements for Transfer to Ph.D. Degree Programme**

A student who enters the M.Phil. degree programme may be allowed to transfer to the Ph.D. programme if he/she makes a satisfactory progress in his/her study. Such a student will be expected to fulfil the following requirements:

- i.candidate has completed all course work with a CGPA of not less than 3.5;
- ii.candidate successfully presented at least two seminars; proposal and progress seminars,
- iii.candidate prepares and submits to the School of Postgraduate Studies through the Department, a research plan considered suitable for pursuing a Ph.D. degree;
- iv.candidate presents a detailed report of research work done up to the time and submit to the School of Postgraduate Studies any relevant published and unpublished materials (if any) that can be assessed by the Department;
- v.candidate passes an oral transfer examination to be conducted by the School of Postgraduate Studies with the panel of examiners drawn from his/her Department on the subject of the research and related topics to the field of study; and
- vi.fulfilled all other conditions as prescribed by the Board of School of Postgraduate Studies of the University.

#### **53.6. 1. Selection Process**

There will be a qualifying written examination for all candidates seeking admission into the postgraduate programmes in Communication and Media Studies of the University. Admission may be offered to all candidates satisfying the eligibility requirements subject to viable groups and availability of teaching facilities. Admission will be finally determined strictly by their performance in the examination.

#### **53.7. Requirements for Graduation**

Conditions for the award of M.Phil. and Ph.D. in Communication and Media Studies are as follows:

##### **a. M.Phil. candidates not able to meet conditions for conversion to Ph.D.**

- i.24 credit units for M.Phil./Ph.D. course work with not less than 50% or CGPA of 3.00-3.49.
- ii.12 credit units for Dissertation to be defended.
- iii.Complete Dissertation and same adjudged to be successful.

##### **b. Ph.D. (for candidates admitted into M.Phil./Ph.D.)**

- i.18 credit units of course work with overall grade of not less than B grade or CGPA of 3.0.

ii.6 credit units of seminar papers preceding conversion.

iii. Conversion seminar.

iv.2 Ph.D. seminar papers after conversion.

v. Pre-field seminar.

vi. Post-field seminar.

vii.12 credit units for Dissertation/Thesis to be defended.

**c. Ph.D. (Holders of M.Phil. Degree and Only M.Sc. Degree in relevant areas with 3.50 CGPA or 60% from Caleb University)**

i.12 credit units of Ph.D. course work to be passed.

ii.6 credit units of 2 seminar papers.

iii. Pre-field seminar.

iv. Post-field seminar.

v.12 credit units for Thesis to be defended.

**53.8. Programme Courses, Structure, and Description**

The M.Phil/Ph.D. programme is designed for either full-time or part-time study. Specifically, the course duration is as follows:

**Course Structure**

i. M.Phil. programme consists of course work and defended dissertation within a minimum period of 4 semesters for full-time students and a maximum of 6 semesters for part-time students.

ii. Part-time students will normally spend additional 2 semesters over and above the duration of full time students (minimum of 6 semesters and maximum of 8 semesters).

iii. Doctor of Philosophy (Ph.D Communication and Media Studies) programme consists of course work, three (3) graded seminars and defended Thesis. The minimum duration is 6 semesters and maximum of 10 semesters for full-time students.

iv. Part-time students will normally spend a minimum of 8 semesters and a maximum of 12 semesters.

### **53.9. Courses and Description – M.Phil/Ph.D**

#### **1<sup>st</sup> Semester – First Year**

<b>S/N</b>	<b>Course Code</b>	<b>Course Title</b>	<b>No. of Units</b>	<b>Status</b>
1.	MAS 901	Contemporary Development in Mass Communication/Seminar	3	C
2.	MAS 903	Quantitative Research and Data Analysis	3	C
3.	MAS 905	Political Economy of Mass Communication	3	C
4.	MAS 907	Health and Behavioural Change	3	E
5.	MAS 909	Communication Policy	6	E

#### **2<sup>nd</sup> Semester – First Year**

<b>S/N</b>	<b>Course Code</b>	<b>Course Title</b>	<b>No. of Units</b>	<b>Status</b>
1.	MAS 902	MIS and Social Aspects of ICTs	3	E
2.	MAS 904	Advanced Studies in Development Communication	3	E
3.	MAS 906	Communication Seminar	3	C
4.	MAS 908	Media Audiences	3	E
5.	MAS 910	Qualitative Communication Research	3	C
6.	MAS 912	Entrepreneurship	3	C
7.	MAS 992	Seminar	3	C

**1<sup>st</sup> Semester – Second Year (Third Semester)**

S/N	Course Code	Course Title	No. of Units	Status
1.	MAS 991	Seminar Course (Area of Specialization)	3	C
2.	MAS 993	Seminar Course (Area of Specialization)	3	C
3.	MAS 999	Dissertation/Thesis	12	C

**2<sup>nd</sup> Semester – Second Year (Fourth Semester)**

S/N	Course Code	Course Title	No. of Units	Status
1.	MAS 992	Seminar Course (Area of Specialization)	3	C
2.	MAS 998	Dissertation/Thesis	12	C

**1<sup>st</sup> Semester – Third Year (Fifth Semester)**

S/N	Course Code	Course Title	No. of Units	Status
1.	MAS 999	Dissertation/Thesis	12	C

**2<sup>nd</sup> Semester – Third Year (Sixth Semester)**

S/N	Course Code	Course Title	No. of Units	Status
1.	MAS 998	Dissertation/Thesis	12	C

**53.10. COURSE DESCRIPTION****MAS 901- Contemporary Development in Mass Communication-3 C**

The course is designed to examine recent and ongoing changes in the mass media landscape, the forces responsible for those changes and the reactions from the media, the state and the audiences that have attended them. The course will also critically discuss how these changes have influenced media practice, behaviour and contents and the audiences of the media. Issues

like privatization, commercialization, globalization, media concentration, technology and their implications will be examined.

### **MAS 902 – MIS and Social Aspects of ICTs – 3 E**

The course is designed to expose the student to the critical issues in the emergence, development and use of ICTs particularly in Africa and the developing world. It will examine their roles in the development and political process. It will further discuss their implications for the 'old' media of mass communication, advertising, public relations and the society in general. Such concepts as information age, digital divide, globalization, convergence etc. will be critically examined. Relevant theories for the study of ICTs will also be discussed.

### **MAS 903 – Quantitative Research and Data Analysis – 3 C**

The course is designed to equip the student with skills and techniques on how to conduct quantitative research e.g. content analysis and survey, analyse the data generated using such packages like SPSS and their graphical presentation. The course will explore the various quantitative research designs, sampling, and the importance of the computer in data analysis and presentation.

### **MAS 904 – Advanced Studies in Development Communication – 3 E**

The course is designed to stimulate a critical understanding of developmental issues in the study of Mass Communication. It will examine the forces and factors which over the years have influenced the direction and context of development. It will also examine the various models in the study of developmental communication.

### **MAS 905 – Political Economy of Mass Communication – 3 C**

The course examines the nature of the relationship between mass media and communication systems on the one hand, and the broader social structure of society on the other. The determining influence of the market and material forces on media production, access and consumption and their implications for social relations nationally and globally are critically examined.

### **MAS 906 – Communication Seminar – 3 C**

Each student is expected to present a well-researched and publishable seminar paper in his area of interest.

### **MAS 907 – Health and Behavioural Change Communication – 3 E**

The course is designed to discuss the role of communication in public health care delivery. It will also examine the various strategies that can be employed in this regard. It will further examine attitude change theories and discuss how communication can be used in the process of attitude change. Student will be expected to evaluate some specific case studies.

### **MAS 908 – Media Audiences – 3 E**

The course is designed to create critical understanding of the various theoretical conceptions of media audience and how such conceptions have changed over time. The course will also examine the techniques of analysing the audience.

### **MAS 909 – Communication Policy – 3 E**

Changes in media landscape in the last few years have led to various responses by policy makers and the society at large about the management of communication resources, technologies, control of media contents, ownership patterns and other factors. The course considers these shifting environments of communication structures and practice, the socio-legal and policy responses and their implications for say, democracy, citizenship and development. The course will explore the public policy making process as it concerns communication, the contents of such policy within a comparative perspective. The course will examine the forces and actors influencing such policies.

### **MAS 910 – Qualitative Communication Research 3 C**

The course is designed to teach students the relevance and potency of qualitative research designs. The process involved in generating and analysing data through interview method etc. would be discussed.

### **MAS 912 – Entrepreneurship 3 C**

The course will cover definitions and goals of entrepreneurship. It will expose students to the functions of entrepreneurs, management theories, sources of finance development strategies. Also, skills required of entrepreneurs, creation and management of databases, etc. will be discussed.

### **MAS 991, MAS 992 AND MAS 993 – Seminar Courses**

These courses cover three (3) seminars. This is the review of class/seminar empirical studies in the student's area of specialization e.g. Print, Broadcasting, Public Relations and Advertising Journalism, Film/Cinematography and Media Studies.

### **MAS 998 and MAS 999      Thesis**

The expectation here is higher than what obtains at the Master's degree level. Each Ph.D student will initiate and execute a scientific research of a publishable quality. Originality, depth, veracity and discipline are emphasized. Every student will be supervised by a lecturer who has knowledge in the particular area being investigated.

At the completion of the seminars, the M.Phil./Ph.D. student can then proceed to present research conversion seminar for admission into the Ph.D. programme.

## **54. POLITICAL SCIENCE**

### **54.1. POSTGRADUATE DIPLOMA (PGD) IN POLITICAL SCIENCE**

#### **54.2. Philosophy**

The Post Graduate Diploma programme in Political Science is designed to avail candidates whose initial discipline is either not Political Science or do not make the requisite class of degree to enable them undergo the Master's programme in Political Science. In doing this the programme is a dual response both to the needs of the Nigerian society for skilled manpower in diverse areas of public life including public administration, diplomacy, rural development and avail more Nigerians the opportunity to understand the workings of government

institutions and processes with a view to enhancing the sustainability of Nigeria's democratic project.

### **54.3. Aims and Objectives**

The objectives of the programme are to:

- d. Train graduates in all disciplines to develop ability for critical thinking and judgment through a broad knowledge of theoretical and practical issues in politics, administration and diplomacy
- a. Trained skilled manpower for educational institutions, public bureaucracy, private sector and international agencies.
- a. Enable graduates to acquire entrepreneurial skills that will make them successful in public life and to become self-employed
- a. Produce graduates who are equipped with relevant ICT knowledge and skills that will assist them in future work in academia, public bureaucracy, private enterprises and international organizations.

Therefore, throughout the programme, emphasis is placed on training in research techniques and the development of analytical skills that can be applied to solving socio-economic problems.

### **54.4. ADMISSION REQUIREMENTS**

- d. Candidates must satisfy the matriculation requirements of the University, including English Language and Mathematics at the Ordinary Level
- a. Candidates with, at least, a Third Class Bachelor's degree in an NUC-accredited related discipline from an approved university
- a. Candidates with a Higher National Diploma in a cognate discipline awarded by a recognized institution with not less than an Upper Credit

## **54.5. PROGRAMME STRUCTURE, COURSES AND COURSE DESCRIPTION**

### **Course Duration**

The duration of the programme is two semesters made of course work only in the first semester and course work plus research project in the second semester. The choice of elective courses and the dissertation topic shall reflect the student's area of interest.

### **Areas of Concentration**

Available areas of concentration are

- i. Nigerian Government and Politics
- ii. Public Administration and Policy Analysis
- iii. International Relations
- iv. Comparative Politics and Development Studies

## **54.6. PGD Requirements**

A minimum of 32 credit hours/units are required to earn the PGD in Political Science from Caleb University.

- General Studies 02 units
- Core/Compulsory Courses 15 units
- Electives 09 units
- Research Project 06 units

### **Examination**

- d. The minimum pass mark shall be 50%. The grading for each course consists of Continuous Assessment and Final Examination at 30% and 70% respectively.
- a. A minimum 80% class attendance is a pre requisite to sit for the end of semester examination in a course.
- a. Any student who fails in any course shall repeat the course.

- a. Any student whose GPA falls below 2.00 in any semester shall withdraw from the programme.

#### 54.7. Available Courses

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>1<sup>st</sup> Semester</b>	<b>2<sup>nd</sup> Semester</b>
<b>GENERAL COURSES</b>			
GNS 701	Leadership Education	1	
GNS 702	Entrepreneurial Studies		1
	<b>Sub Total</b>	<b>1</b>	<b>1</b>
<b>CORE/COMPULSORY COURSES</b>			
POL 701	Development of Political Thought	3	
POL 702	Foundations of Political Economy		3
POL 703	Basic Statistics & Research Methodology	3	
POL 704	Political Behaviour		3
POL 743	Contemporary Political Analysis	3	
	<b>Sub Total</b>	<b>9</b>	<b>6</b>
<b>ELECTIVE COURSES (Choose 06 &amp; 03 electives in 1<sup>st</sup> &amp; 2<sup>nd</sup> semesters respectively)</b>			
POL 704	Development Administration		3
POL 701	Theories of Public Administration	3	
POL 717	Organisation Theory & Behaviour		3
POL 714	Public Personnel Administration	3	
POL 723	Principles of Public Finance		3
POL 719	Nigerian Administration and Local Government	3	

POL 712	Issues in Federalism & Intergovernmental Relations		3
POL 710	Military and Politics	3	
POL 716	Issues in Third World Development		3
POL 725	Development Economics	3	
POL 718	Political Economy of Nigeria		3
POL 705	Theory and Methods of Comparative Politics	3	
POL 720	International Institutions		3
POL 729	Comparative Political Systems	3	
POL 726	Theories of Conflict and International Security		3
POL 707	Theories of International Relations	3	
POL 733	Africa's International Relations	3	
POL 724	Foreign Policy Analysis	3	
	<b>Sub Total</b>	<b>6</b>	<b>3</b>
POL 799	Research Project		6
	<b>Sub Total</b>		<b>6</b>
	<b>TOTAL = 32 units</b>	<b>16</b>	<b>16</b>

#### 54.8. COURSE DESCRIPTION

##### GEN 701 Leadership Education

##### GEN 702 Entrepreneurial Studies

##### POL 701 Development of Political Thought

Political thought from Plato to African thinkers are to be examined. Theories to be considered include the State, Power, Freedom, Equality, Authority, Justice, Democracy, Liberation,

Socialism, Marxism, Revolution, etc. Also, attention will be focused on two influential schools of thought; Marxism and Positivism.

### **POL 702 Foundations of Political Economy**

An examination of the methodological as well as substantive issues in the study of social change. It looks at the structures and processes underlying the movement of society. Theories about the organisation of production and then distribution of socially generated surplus in various social formations both capitalist and pre-capitalist are looked into.

### **POL 703 Basic Statistics and Research Methodology**

This deals with the logic, methods and philosophy of scientific inquiry. It will examine methods of data collection, survey techniques and data analysis as it relates to social sciences, especially Political Science leading to theory building and model construction. It will include the use of various mathematical and statistical techniques in the construction and analysis of political theory. Such basic statistical tools and techniques like regression, correlation, test of hypothesis, random numbers (probability, distribution, etc.), etc.

### **POL 704 Political Behaviour**

The course will examine various determinants of political behavior, political socialization, political culture, political participation and apathy, electoral behaviour, public opinion and political communications.

### **POL 701 Theories of Public Administration**

The course will undertake an in-depth study of the underlying thoughts and theories on bureaucracy and organization with focus on rationalism and scientific management theory, human relations theory, behaviouralism, general systems theory and the policy sciences.,

### **POL 704 Development Administration**

Issues of economic development, planning and implementation machinery. The course will examine such issues as the effect of ecology of the new states and how this impact on the capability of the administrative machinery to fulfil its mandate as a major catalyst in the development of new nations

### **POL 705 Theory and Methods of Comparative Politics**

The course deals with approaches to comparative politics such as structural-functional analysis, social process approach, etc. It will discuss scheme for comparing political systems, analytical methods such as factor analysis and aggregate data analysis will also be used in this course.

### **POL 707 Theories of International Relations**

Traditional behavioural and post behavioural approaches to the study of international relations, concepts of foreign policy behavior and decision-making, utopian and realist approaches, theories of integration and conflict, systems theory and the interplay between nationalism and internationalism. The relationship between theories of international relations and the assumption of policy makers.

### **POL 710 Military and Politics**

In one role or the other, the military has been a major factor in the politics of the modern state. The course seeks to explore issues such as inter dependence of civil-military types, military factors in the foundation of states, the sources of military intervention in politics, the impact of class and/or ethnic relations upon military organization, procedures and behavior, the military as an agency of national development. Case studies will be used to illustrate conceptual issues.

### **POL 712 Issues in Federalism and Intergovernmental Relations**

The course examines the philosophical, legal and political bases for federalism in Nigeria and elsewhere. Furthermore, it will examine the legal, political and administrative relationship between the different levels of government, patterns of relations, crisis of relations, effects of these crises on government functions, management of IGR in Nigeria and problems associated with this.

### **POL 714 Public Personnel Administration**

Analysis of philosophy, functions and procedures of Public Personnel Management, Recruitment, Training and Staff Development, Career Planning, Placement and Promotion, rank versus position classification, employee-employer relations and Joint Negotiation machinery, administrative ethics and the problem of corruption.

### **POL 716 Issues in Third World Development**

The course deals with political development in the third world. The North-South relations and forms of intra hemispheric (southern) interactions. It looks at ways of breaking dependency of the South on the North and fostering intra hemispheric cooperation.

### **POL 717 Organisation Theory and Behaviour**

Examination of the central role of organisations in public life with a view to evaluating their efficiency and effectiveness. Presentation of major theories of organisation and organizational behaviour and their relevance to public and business administration with special reference to Nigerian and African experience.

### **POL 718 Political Economy of Nigeria**

This deals with the nature of the State, society and economy in Nigeria, the underlying basis of the organization of production, distribution and exchange and the role of the Nigerian State and social classes in these processes; Nigeria and the world economy.

### **POL 719 Nigerian Administration and Local Government**

Development, structure, functions and roles of Public Administration at the national and state levels and a critical assessment of its performance over the past two decades. Also, the course looks at the organisation, functions and role of local Government institutions and a critical examination of the administration and decision making processes and practices.

### **POL 720 International Institutions**

Theories regarding the nature and purposes of international institutions, the idea of supra nationalism, functional approach to integration, the theory of collective security. Institutions as the highest form of multilateral diplomacy, as exercises in community binding and as instruments of change. Types and patterns of international organisations, that is, universal/regional; governmental/non-governmental organisations. The constitution, structure and experience of institutions such as the League of Nations, the United Nations, ECOWAS, etc. as illustrating some of the major ideas and issues of international organisation.

### **POL 723 Principles of Public Finance**

Fiscal Policies and Structures, Financial Administration in Government, including budgeting, fiscal control and accountability.

**POL 724 Foreign Policy Analysis**

The course deals with the ways in which international actors – primarily, but not exclusively, states formulate decisions and strategies for dealing with other members of the international community. Emphasis is laid on the interplay between domestic and external forces on the organisation, psychology and politics of small group decision-making, on the purposes behind foreign policy and on the instruments available to those who make the decision. Also, problems of comparison, choice, evaluation and rationality are dealt with.

**POL 725 Development Economics**

The course is a micro-economic survey of classical, modern thoughts and trends of economic development. It treats, among others, the concept of economic development, the problems of measurement of development, the development of macro-economic thoughts and practice from the mercantilists and classical/laissez-faire thinkers to the socialist/Marxist analysis and the Keynesian theory; validity and relevance, analysis of selected major models and theories of economic growth and development such as the Ricardian, Rostow, Harod-Domar, Kaldon and the structuralist models. Finally, the development planning and implementation process in Nigeria will be reviewed as a case analysis in terms of the need to plan for economic development; types of planning, the planning machinery and the planning process.

**POL 726 Theories of Conflict and International Security**

The evolution of modern strategic thinking – major criticisms of the subject and assessment of their validity. Use of force in the nuclear age. Theories of deterrence – concepts, the requirements of creditability, capability and deterrence. Theories of crises management and limited war, concept of crisis management, brinkmanship and escalation, concept and threat analysis relevant to strategic theory of Africa, revolutionary warfare, alliances.

**POL 729 Comparable Political Systems**

Based on a survey of theories and methods of comparative political analysis, the course will explore the historical and social conditions responsible for similarities and differences between political systems. Among topics to be covered are; Comparative processes of state formation,

Political participation, Political Socialisation and ideology and the socio-economic contents of politics.

### **POL 733 Africa's International Relations**

Decolonisation and Pan Africanism. The African regional order, the formation and operation of the OAU. Boundary disputes, irredentism, secession and external intervention in African conflicts. The role of African States in the international system; the UN, UNCTAD and the non-aligned movement. The role of the ECA in Africa's development, the EEC-ACP association, the struggle for power in Southern Africa. Relations with the West, communist powers and the Arab states. What roles for Africa in the post-cold war era.

### **POL 743 Contemporary Political Analysis**

Discussion of major trends in western political theory since about 1770. Topics includes schools of thought like Liberalism, Socialism, Marxism, Nationalism

### **POL 799 Research Project**

Student will undertake research into a topic related to his area of interest and produce a research project under the supervision of a Project Supervisor with relevant experience in the student's area of research.

## **55. M.Sc. POLITICAL SCIENCE PROGRAMME**

### **FIRST YEAR – FIRST SEMESTER**

<b>Course Code</b>	<b>Course Title</b>	<b>No of Units</b>	<b>Status</b>
POL 801/ POL 803 / POL 807	Theories of Public Administration Theories of International Relations Understanding the Nature & Causes of Conflict	3	C
POL 809	Nigerian Government & Politics	3	C
POL 813	Research Methodology	3	C
	<b>Sub Total</b>	<b>09 units</b>	

	<b>Electives: Select 3 units from this section.</b>		
POL 817	Organisation Theory & Behaviour	3	E
POL 819	Nigerian Administration & Local Government	3	E
POL 829	Comparative Political Systems	3	E
POL 833	Africa's International Relations	3	E
POL 837	Arms Control & Disarmament	3	E
POL 841	Terrorism & Global Security	3	E
	<b>Sub-total</b>	<b>03 units</b>	
	<b>Total No of Units</b>	<b>12 units</b>	

#### FIRST YEAR – SECOND SEMESTER

Course Code	Course Title	No of Units	Status
POL 802	Basic Statistics	3	C
POL 812	Issues in African Politics	3	C
	<b>Sub Total</b>	<b>06 units</b>	
	<b>Electives: Select 3 units from this section.</b>		
POL 804	Development Administration	3	E
POL 810	Military and Politics	3	E
POL 820	International Institutions	3	E
POL 824	Foreign Policy Analysis	3	E
POL 844	Peace Theories & Dynamics of Reconciliation	3	E
INR 810	Human Rights in Africa	3	E

	<b>Sub-total</b>	<b>03 units</b>	
	<b>Total No of Units</b>	<b>09 units</b>	

## SECOND YEAR – FIRST SEMESTER

<b>Course Code</b>	<b>Course Title</b>	<b>No of Units</b>	<b>Status</b>
POL 877	Graduate Seminar	3	C
POL 805	Theories and Methods of Comparative Politics	3	C
	<b>Sub Total</b>	<b>06 units</b>	
	<b>Electives: Select 3 units from this section.</b>		
POL 815	Public Policy Analysis	3	E
POL 827	Comparative Federalism	3	E
POL 835	International Law	3	E
POL 839	Defence & Strategic Analysis	3	E
POL 845	Conflict Management & Resolution	3	E
	<b>Sub-total</b>	<b>03 units</b>	
	<b>Total No of Units</b>	<b>09 units</b>	

## SECOND YEAR – SECOND SEMESTER

<b>Course Code</b>	<b>Course Title</b>	<b>No of Units</b>	<b>Status</b>
POL 899	Dissertation	6	C
	<b>Sub Total</b>	<b>06 units</b>	
	<b>Electives: Select 3 units from this section.</b>		
POL 806	Comparative Public Administration	3	E
POL 814	Public Personnel Management	3	E

POL 822	Theories and Practice of Diplomacy	3	E
POL 826	Theories of Conflict and International Security	3	E
POL 844	Mediation Practice	3	E
	<b>Sub-total</b>	<b>03 units</b>	
	<b>Total No of Units</b>	<b>09 units</b>	

## 55. 1.M.Sc. International Relations Programme

### FIRST YEAR – FIRST SEMESTER

Course Code	Course Title	No of Units	Status
INR 801	Theories of International Relations	3	C
INR 805	Research Methodology	3	C
	<b>Sub Total</b>	<b>06 units</b>	
	<b>Electives: Select 3 units from this section.</b>		
INR 807	Theories & Practice of Diplomacy	3	E
INR 811	Asia and the World	3	E
INR 813	Africa's International Relations	3	E
INR 817	Arms Control and Disarmament	3	E
	<b>Sub-total</b>	<b>03 units</b>	
	<b>Total No of Units</b>	<b>09 units</b>	

### FIRST YEAR – SECOND SEMESTER

Course Code	Course Title	No of Units	Status
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INR 802	Foreign Policy Analysis	3	C
INR 804	Nigerian Foreign Policy	3	C
	<b>Sub Total</b>	<b>06 units</b>	
	<b>Electives: Select 3 units from this section.</b>		
INR 806	Foreign Policies of the Francophone States of West Africa	3	E
INR 808	New States in World Politics	3	E
INR 812	International Law	3	E
INR 814	Theories of Conflict and International Security	3	E
	<b>Sub-total</b>	<b>03 units</b>	
	<b>Total No of Units</b>	<b>09 units</b>	

## SECOND YEAR – FIRST SEMESTER

Course Code	Course Title	No of Units	Status
INR 803	International Economic Relations	3	C
INR 877	Graduate Seminar	3	C
	<b>Sub Total</b>	<b>06 units</b>	
	<b>Electives: Select 3 units from this section.</b>		
INR 809	European Union and the World	3	E
INR 801	Human Rights	3	E
INR 815	International Institutions	3	E
INR 819	Defence and Strategic Analysis	3	E
	<b>Sub-total</b>	<b>03 units</b>	
	<b>Total No of Units</b>	<b>09 units</b>	

## SECOND YEAR – SECOND SEMESTER

Course Code	Course Title	No of Units	Status
INR 899	Dissertation	6	C
POL 844	Mediation Practice	3	R
	<b>Total No of Units</b>	<b>09 units</b>	

## WHAT OF THE CURRICULUM FOR PHD INTERNATIONAL RELATIONS

### 55. 2 Course Description

#### **POL 801 Theories of Public Administration**

The course will undertake an in-depth study of the underlying thoughts and theories on bureaucracy and organization with focus on rationalism and scientific management theory, human relations theory, behaviouralism, general systems theory and the policy sciences.,

#### **POL 802 Research Methodology**

This deals with the logic, methods and philosophy of scientific inquiry. It will examine methods of data collection, survey techniques and data analysis as it relates to social sciences, especially Political Science leading to theory building and model construction. It will include the use of various mathematical and statistical techniques in the construction and analysis of political theory. Such basic statistical tools and techniques like regression, correlation, test of hypothesis, random numbers (probability, distribution,), etc.

#### **POL 803 Nigerian Government and Politics**

The course is to provide students with an in-depth knowledge of the antecedents of the territory now referred to as Nigeria with a view to having a good grasp of the forces at play in the shaping of the modern Nigerian state. It will examine such issues as the Nigerian federal structure and the division of powers, critical issues in Nigerian politics like Census, Elections,

Representation and Representativeness, Ethnic Relations, Revenue Allocation, Resource Control, Public Service, Party System, Local Government system, the Military, etc.

#### **POL 804 Development Administration**

Issues of economic development, planning and implementation machinery. The course will examine such issues as the effect of ecology of the new states and how this impact on the capability of the administrative machinery to fulfil its mandate as a major catalyst in the development of new nations

#### **POL 805 Theory and Methods of Comparative Politics**

The course deals with approaches to comparative politics such as structural-functional analysis, social process approach, etc. It will discuss scheme for comparing political systems, analytical methods such as factor analysis and aggregate data analysis will also be used in this course.

#### **POL 806 Comparative Public Administration**

An organizational and functional comparative analysis of various types of models of Public Administration as obtained in various countries.

#### **POL 807 Theories of International Relations**

Traditional behavioural and post behavioural approaches to the study of international relations, concepts of foreign policy behaviour and decision-making, utopian and realist approaches, theories of integration and conflict, systems theory and the interplay between nationalism and internationalism. The relationship between theories of international relations and the assumption of policy makers.

#### **POL 810 Military and Politics**

In one role or the other, the military has been a major factor in the politics of the modern state. The course seeks to explore issues such as inter dependence of civil-military types, military factors in the foundation of states, the sources of military intervention in politics, the impact of class and/or ethnic relations upon military organization, procedures and behaviour, the military as an agency of national development. Case studies will be used to illustrate conceptual issues.

#### **POL 811 Issues in African Politics**

The central objective of the course is to situate the historical, economic and social conditions underlying the course of political development of contemporary African states. Since its emergence as a field of intellectual inquiry, the study of African politics – like the study of development to which it is closely related – has witnessed expansion and shifts in theoretical orientation and substantive concerns. Thus, a central concern of the course will be to investigate the premises of divergences between contending theoretical perspectives that seek to replicate the interrelationship between politics and national development of African societies.

### **POL 813 Basic Statistics**

The course will deal with regression and correlation, test of hypothesis (the null and the alternative hypothesis); Random number (distribution, binomial distribution, normal distribution, bivariate normal distribution, beta distribution); use of SPSS.

### **POL 814 Public Personnel Administration**

Analysis of philosophy, functions and procedures of Public Personnel Management, Recruitment, Training and Staff Development, Career Planning, Placement and Promotion, Rank versus Position classification, Employee-Employer relations and Joint Negotiation machinery, Administrative Ethics and the problem of corruption.

### **POL 815 Public Policy Analysis**

Analysis of major factors determining public policy including the role of Chief Executive, Legislature and Bureaucracy, allocation of resources, social indicators, forecasting the future decision making, implementation and evaluation research, Approaches – both rational, normative and incremental- to policy analysis and policy impact analysis explored. Policy areas such as Integrated Rural Development Programme, National Education Policy, Public Health and Social Welfare programmes are to be examined.

### **POL 817 Organisation Theory and Behaviour**

Examination of the central role of organisations in public life with a view to evaluating their efficiency and effectiveness. Presentation of major theories of organisation and organizational behaviour and their relevance to public and business administration with special reference to Nigerian and African experience.

### **POL 819 Nigerian Administration and Local Government**

Development, structure, functions and roles of Public Administration at the national and state levels and a critical assessment of its performance over the past two decades. Also, the course looks at the

### **POL 820 International Institutions**

Theories regarding the nature and purposes of international institutions, the idea of supra nationalism, functional approach to integration, the theory of collective security. Institutions as the highest form of multilateral diplomacy, as exercises in community binding and as instruments of change. Types and patterns of international organisations, that is, universal/regional; governmental/non-governmental organisations. The constitution, structure and experience of institutions such as the League of Nations, the United Nations, African Union, ECOWAS, etc. as illustrating some of the major ideas and issues of international organisation.

### **POL 822 Theories and Practice of Diplomacy**

The course provides practical and analytical insights into the problems and issues to do with organisation, representation, negotiation, treaties and multilateral diplomacy of states. It is concerned with the different ways in which states manage their foreign policy and conduct business internationally. Emphasis is laid on organisation of diplomacy, missions, trade and overseas representation, negotiation, bilateral and multilateral diplomacy and other international agreements; international conference diplomacy, GATT, G-77, G-7, IMF, etc.; international economic management, foreign policy problems of new states, diplomacy and international security and diplomacy of economic development.

### **POL 824 Foreign Policy Analysis**

The course deals with the ways in which international actors – primarily, but not exclusively, states formulate decisions and strategies for dealing with other members of the international community. Emphasis is laid on the interplay between domestic and external forces on the organisation, psychology and politics of small group decision-making, on the purposes behind foreign policy and on the instruments available to those who make the decision. Also, problems of comparison, choice, evaluation and rationality are dealt with.

### **POL 826 Theories of Conflict and International Security**

The evolution of modern strategic thinking – major criticisms of the subject and assessment of their validity. Use of force in the nuclear age. Theories of deterrence – concepts, the requirements of creditability, capability and deterrence. Theories of crises management and limited war, concept of crisis management, brinkmanship and escalation, concept and threat analysis relevant to strategic theory of Africa, revolutionary warfare, alliances.

### **POL 827 Comparative Federalism**

The course seeks to assess the capability of federalism as a compromise between two contending types of national self-determination. Through a survey of relevant theories and approaches, the course will explore the historical and social conditions responsible for the differences and similarities in the practice of federalism. Case studies will be used to illustrate the issues raised.

### **POL 829 Comparable Political Systems**

Based on a survey of theories and methods of comparative political analysis, the course will explore the historical and social conditions responsible for similarities and differences between political systems. Among topics to be covered are; Comparative processes of state formation, Political participation, Political Socialisation and ideology and the socio-economic contents of politics.

### **POL 833 Africa's International Relations**

Decolonisation and Pan Africanism. The African regional order, the formation and operation of the OAU. Boundary disputes, irredentism, secession and external intervention in African conflicts. The role of African States in the international system; the UN, UNCTAD and the non-aligned movement. The role of the ECA in Africa's development, the EEC-ACP association, the struggle for power in Southern Africa. Relations with the West, communist powers and the Arab states. What roles for Africa in the post-cold war era.

### **POL 835 International Law**

Development functions, theory and sources. Prescriptions as rules of law. Custom and general principles. The nature of a horizontal legal order. International personality, sovereignty and immunity, exhaustion of local remedies and denials of justice. Recourse to force, the seas, airspace, human rights and minimum standards of justice. Limits of territorial sovereignty. Treaties and Juscogens, the role of diplomacy.

**POL 837 Arms Control and Disarmament**

Disarmament – concept, critique of theory, history. Arms control concept, arms control talks – SALT, NPT, etc., basic requirements of viable arms control, arms race, arms trade with third world, the Nigerian option for nuclear debate, usefulness of arms control talk to the world.

**POL 839 Defence and Strategic Analysis**

Strategic doctrines of the superpowers, the defence politics of the nuclear powers, NATO and Warsaw Pact, foreign military intervention in Africa; hypotheses and propositions concerning collective security systems in Africa, strength and weaknesses of the South African threat, France and Nigeria's neighbours, Introduction to Defence Economics, Theories of Defence Expenditure, Resources for Defence Expenditure, Resources for Defence, Budgeting for Defence, Theory of Collective or {Public Good, Military Alliances, etc.

**POL 877 Graduate Seminar**

This is an advanced seminar series at which students will make major presentation on topics as approved by the Department. It may be in the field of the student's interest or an interdisciplinary issue that will provoke and promote intellectual discourse among students and faculty.

**POL 899 Dissertation**

Student will undertake research into a topic related to his area of interest and produce a dissertation under the supervision of a Project Supervisor with relevant experience in the student's area of research.

## **56.0 PGD. MANAGEMENT/BUSINESS ADMINISTRATION PROGRAMME (why here)**

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### **GENERAL INFORMATION**

The postgraduate diploma (PGD) Programme is aimed at producing post graduates who are equipped with the necessary knowledge and skills to become managers, researchers and industrialists in the Nigerian economy. From 2003 to 2012, Nigeria attempted to implement an economic reform program called the National Economic Empowerment and Development Strategy (NEEDS) and transformational agenda. The purpose of these programmes is to raise the country's standard of living through a variety of reforms, including macroeconomic stability, deregulation, liberalization, privatization, transparency, and accountability. The government hoped that the NEEDS in particular would create 7 million new jobs, diversify the economy, boost non-energy exports, increase industrial capacity utilization, and improve agricultural productivity. These laudable objectives cannot be realized without business administration knowledge and skills. Small, medium and even large scale enterprises need to be managed efficiently and economically. This is why this professional post graduate degree is timely and relevant in the Nigerian educational system.

### **GENERAL REGULATIONS GOVERNING ADMISSION**

#### **Admission Requirements**

To qualify for admission into this programme, a candidate should possess:

- i. Five (5) credit passes including English and Mathematics at the 'o' Level as basic requirement.
- ii. Bachelor degree of not less than 3rd class honours degree from approved university. Also candidate with Bachelor degree with at least Second Class Lower Division in areas not related to Administration may be consider
- iii. Higher National Diploma and/or professional qualifications cognate to management from a recognized institution obtained at not less than upper credit.
- iv. An acceptable level of "Pass" in any PGD Entrance Examination conducted by the
- v. A Postgraduate Diploma in Business Administration from a recognised University passed with a minimum of Upper Credit.
- vi. Any other qualifications recognized by the Senate of Caleb University
- vii. A minimum of one year managerial/administrative experience.

## Transfer

Students, who transfer from other universities shall be credited with only those courses, deemed relevant to the programmes, which they have already passed prior to their transfer. Such students shall however be required to pass the minimum number of units specified for graduation for the number of sessions he/she has spent in Faculty; provided that no student shall spend less than four semesters in order to earn a degree. Students who transfer for any approved reason shall be credited with those units passed that are within the curriculum. Appropriate decisions on transfer cases shall be subjected to the approval of Senate on the recommendation of the Faculty. If anyone is on probation for 2 consecutive semesters, he/she shall be required to withdraw from the programme.

## Withdrawal:

A candidate whose CGPA is below 2.40 at the end of a particular year of probation shall be required to withdraw from the University.

## REGISTRATION AND MATRICULATION PROCEDURES

### (a) Registration Procedure

Students shall normally complete registration for courses for the semester not later than two weeks after the start of the semester. A student cannot withdraw from a course after a third of it has been given without permission from the Head of Department. A student who withdraws after this time or who fails to sit for the final examination without reasons acceptable to the Senate shall be deemed to have failed that course.

## PROGRAMME STRUCTURE

The courses required on the programme are classified into two categories. The first category is made up of core or compulsory (C) courses which must be taken and passed by students. The courses cover foundation and advanced courses in the basic areas of business administration, accounting, economics, finance, human resources management, and marketing. The second category of courses consists of elective (E) courses, including the specialization courses which are taken in the fourth semester. Each course carries 3 credit units, which requires 45 contact hours with the Resource Person of the course. The requirement generally determines the length of the semester which must allow the specified number of contact hours to be met. Elective courses would be offered “if” they are subscribed to by a minimum of five students each.

## Duties and Responsibilities of Invigilators and Procedure for Conduct of Examination

Before an examination, the invigilator shall:

- a) Collect attendance sheets, question papers, answer booklets, staplers and other examination materials from Postgraduate school.
- b) Search all students thoroughly before they are allowed into the examination hall.
- c) Admit the students into the examination venue minutes before the commencement of examination.
- d) Preliminary formalities such as announcements must be completed before issuing question papers and answer booklets.
- e) Reminds the students that it is an offence to take any unauthorised books, notes or manuscripts (whether or not they are related to the examination) into the examination venue.
- f) Student in possession of such articles should be given the opportunity of handing over to the invigilator or leaving them in front of the examination hall.
- g) Announce that the attendance register be completed during the examination. No student should leave the examination hall without completing the register. Ensure that each student signs against his/her name and matriculation number.
- h) Distribute the question papers and answer booklets without delay while ensuring that each student has a copy of the question paper and answer booklet.

Conducts of the Invigilator during Examination

The invigilator shall:

- a. Walk periodically around the examination hall to ensure strict compliance with the examination regulation at all times. The invigilator should be vigilant and not engage in other task such as reading, marking of scripts, conversation, answer or make phone calls. Consequently, all cell phones are to be switched off during the examination.
- b. Not admit students into the examination hall 30 minute after the commencement of the under permissible examination circumstances. Such cases shall be reported to the Departmental PG Coordinator in writing.
- c. Ensure that no student leaves the examination hall during the last ten minutes of the examination (except on health ground) until all answer scripts have been collected and accounted for.

Conducts of the Invigilator after Examinations

The invigilator shall:

- a. Ensure that students remain seated until all answer scripts have been collected.

- b. Go round and collect the answer script of each student before the student leaves the examination hall. The invigilator shall make a formal report on any student who completes the attendance register and fails to hand in his/her script for further action.
- c. Ensure that students do not take any examination booklet, used or unused out of the examination venue.
- d. Hand over all scripts, attendance register, and all unused materials to the DPGC immediately after the examination.
- e. Report in writing any regularities to the DPGC within 24 hours after the examination for further necessary action.

#### Responsibilities of the Course Examiner

The duties of the course examiner include:

- a. Course examiner must be present at the beginning of the examination not later than 30 minutes after the commencement of the examination (to correct any misprint) and at the end of the examination (to collect and sign for answer scripts from the DPGC).
- b. All answer scripts should be marked, graded and submitted to the Chief Examiner not later than 7 days after the paper was taken.

#### Examination Regulations Pertaining to Students

Students are strongly advised to acquaint themselves with and adhere strictly to the following regulations:

- a. Know your DPGC.
- b. Study the provisional time-table for each examination, and report any cases of omissions, clashes to the DPGC not later than 48 hours after the time-table is pasted.
- c. Copy the time-table courses, periods and venues correctly to avoid incidences of sitting for a wrong examination or not sitting for an examination at all.
- d. Ensure that all papers to be taken are correctly reflected in the final time-table.
- e. Have your own writing materials: biros, pencils, erasers, calculators, mathematical sets, etc.
- f. Report at the venue at least 30 minutes before the commencement of an examination. Late comers will not be given extra time.
- g. Use the matriculation numbers as examination numbers during examinations.

#### Conducts of Students at the Examination Venue

- a. Student should not have in his/her possession any paper, printed or written, whether relevant to the examination or not except as may be stated in the instructions on the question paper. An invigilator has authority to confiscate any unauthorized document or material.
- b. Deposit all hand bags, brief cases etc. in front of examination hall.
- c. Not engage in any form of communication with fellow student.
- d. Display his/her clearance form on the table.
- e. Not accept or give assistance directly or indirectly to any other student during the examination as this may amount to examination malpractice.
- f. If for a good reason, the student must leave the examination hall temporarily, he/she must be accompanied by an invigilator or his/her assistant.
- g. Student must not leave the examination hall with the question paper until he/she has submitted the answer script.
- h. Hand over his/her script to the invigilator at the end of the examination. The student is responsible for the proper return of answer script.

Sign in and out, the attendance register provided during the examination

## GRADING SYSTEM, STUDENTS PROBATION, WITHDRAWAL AND EXPULSION

### Grading System:

- i. Continuous Assessment marks shall be included in the total examination marks. For theoretical courses, the continuous assessment component shall account for 30% while the examination component shall account for 70%.
- ii. The pass mark for all written examinations shall be 50%.
- iii. The grading system shall be as follows:

Marks Awarded	Letter Grade	Grade
70-100	A	5
60-69	B	4
50-59	C	3

0-49	F	0
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- iv. All semester examination question papers and answer scripts shall be moderated by the external examiner (s).

To proceed to the thesis stage of the programme, a student must have successfully completed the course work and successfully defended the research proposal.

#### Assessment

Assessment of students' should be based on:

- a. Examinations
- b. Term Paper
- c. Oral presentations and problem solving exercises
- d. Assignments
- e. Group project works
- f. Thesis

#### Continuous Assessment

Continuous assessment may be done through essays, tests, term papers, tutorial exercises, quizzes and home works.

- a. Scores from continuous assessment shall constitute 30% of the final marks for courses which are primarily theoretical.
- b. For courses which are partly term paper presentations and partly theoretical, scores from continuous assessment shall constitute 30% of the final marks.
- c. For courses that are entirely term paper presentations, continuous assessment shall be based on a student's term paper for reports and shall constitute 100% of the final mark.

#### Tutorial

There should be one hour of tutorial for every four hours of lecture. Thus a course of one credit unit should comprise 12 hours of lecture and three hours of tutorials.

#### Term Papers

There would be term paper presentations which shall form part of the graduation requirements.

#### Students' Probation, Withdrawal and Expulsion:

At the expiration of the period for a given programme as indicated in Retention Policy, any student who has not completed his/her programme shall be withdrawn from the Academy.

However, exceptional circumstances, application for extension to complete the programme may be entertained. Such extension shall not exceed a period of one year (2 semesters), and is subject to approval by the Postgraduate School Board.

## Change of Programme

No change is allowed once a candidate is admitted to pursue a particular course of study.

## Duties/Responsibilities of the Student

It is mandatory for a student to”

- a) Consult his/her supervisor regularly
- b) Register and pass all the prescribed examinations
- c) Adhere strictly to all regulations governing his/her postgraduate candidature in the Academy.

## Misconduct

Any student found cheating in an examination or engaged in any other misconduct shall be penalized according to the regulations governing the conduct of examinations in the College of Postgraduate Studies.

## Change of Supervisor

A student who encounters any serious problem with his/her supervisor shall apply to the Department. The Departmental Postgraduate Committee shall invite the views of the supervisor and the student. Recommendations shall be made through the Postgraduate Committee to the College of Postgraduate Studies that a new supervisor be appointed, or there be no change or an additional supervisor be appointed.

## RESEARCH THESIS

### Research Policy

- i. A student admitted for PGD Programme shall within the first year of registration submit and defend a proposal of the research interest of his/her choice before the Departmental Postgraduate Committee. When approved, the proposal is forwarded to the PG School Committee Postgraduate through the College Postgraduate Studies Committee.
- ii. The Departmental Postgraduate Committee will then complete the appropriate forms for registration of title of proposed research and list of supervisors, and forward same to the Dean of College of Postgraduate Studies through the College Postgraduate Studies Committee for approval.

- iii. The title of thesis and the supervisor(s) once approved cannot be changed without the approval of the College of PG Studies Committee.

#### Methodology and Thrust

- i. Each student shall prepare a research thesis in accordance with the standard approved by COPOS for the relevant discipline.
- ii. The thesis must be the student's original piece of work which shows good scholarship and contribution to knowledge.
- iii. A student shall not be permitted to submit for the award of degree, a thesis on account of which a degree has been previously conferred on him in this or any other institutions.
- iv. The thesis may consist of several chapters. However the chapters must be linked up properly in accordance with the guidelines for the preparation of thesis for the relevant discipline.
- v. The thesis for Master's degree shall not be more than 45,000 words in length and must be accompanied by a short abstract of not more than 500 words.
- vi. If any part of a thesis is to be published before the award of the degree in view it must be indicated that the content of the publication is in partial fulfillment for the award of a higher degree in Caleb University
- vii. A student shall be required to sign a declaration that the thesis represents his/her own original work and that it has not been presented elsewhere for the award of any degree.

#### Examination of Research Proposal

Every postgraduate student is given a chance to present his draft research proposal at the staff/postgraduate students' seminar. The aim is to enable a student to benefit from the comments, criticisms and suggestions of others before he/she produces the final version of his/her proposal for examination.

A research proposal is mandatory for PGD Business Administration candidates. For this purpose, there shall be an examination panel comprising the Head of Department, the Postgraduate Coordinator, the student's supervisor, and all academic members of the department from the rank of senior lecturer and above. The HOD/postgraduate coordinator will

appoint/select chairman for the panel. The student will be interviewed orally by the panel after reading through the research proposal.

No student should embark on study without prior approval of research proposal. The panel must satisfy itself that the research proposal is viable; that there is indeed a problem to be investigated; that the problem is of a Management in nature; and that the research design, the variables to be measured, the sampling frame and size are appropriate and adequate to meet the needs of the study. Sometimes, a research proposal may be approved subject to the candidate's making some modifications or orienting the study in a certain way. A student must abide by such instructions because these would be referred to later in approving thesis for oral examination.

#### Leave of Absence

A student whose study area is outside Lagos may need to stay away from the department for some time in order to carry out fieldwork. For this purpose, a student is required to fill the Leave of Absence Form which must be endorsed by the supervisor and the Head of Department before the student goes away.

#### Execution of Research Project

It is the duty of each student to carry out fieldwork process and analyze the data and interpret the results. But the supervisor must be kept informed as the work progresses. In the end, a student must be able to produce on request, the raw data and the processed or computer analyzed data. The data collection exercise calls for transparency, honesty and integrity on the part of the student. In fact, this is one good reason why a wise student will keep close to the supervisor so that there will be no doubt at all about the integrity of the data collected. PhD Students are expected to present three seminar papers on the research work apart from research proposal during which critical assessment of work procedures methodologies and findings shall be carried out before viva voce/oral examination. This may be slated during the staff/postgraduate students' seminars.

#### The Oral Examination

The viva voce/oral examination is to test the students' understanding and grasp of the work. The student is expected to demonstrate that he/she really carried out the study and mastered all its key elements. The student's competence in carrying out the study and his preparation for the

oral examination should show in the confidence displayed in his discussion of any issues that may be raised during the oral examination.

The oral examination is also a learning process for the students. He/she should listen to ideas, views suggestions offered by the examiners as these may be useful to him/her; if not in improving the thesis already written but, in his future research activities. Examiners, in addition to any other points they may care to raise, are required to comment specifically on (i) adequacy of research design; (i) the execution of the research project; (ii) knowledge and use of existing literature (iv) the nature of the specific contributions to knowledge made by the student; and (v) the technical presentation and literary quality of the thesis.

a. If the student satisfied the examiners in oral examination and the thesis is acceptable subject to minor corrections, such corrections shall be carried out within six (6) weeks to the satisfaction of the Chief Examiners shall forward same to the College of Postgraduate Studies through the College of Postgraduate Studies Committee within two (2) weeks.

b. If on the other hand, the student satisfies the examiners in oral examination but the thesis is unacceptable in its present form due to major corrections, such corrections shall be effected within twelve (12) weeks to the satisfaction of the external examiner. The HOD shall then forward same to the examiner. Dean, College of Postgraduate Studies through the College of Postgraduate Studies' Committee.

c. If the thesis is satisfactory but the student fails in oral or written examination, he/she may be recalled for another oral examination within a semester on the approval of COPOS. However, the examination cannot be repeated more than once.

### Revision of Thesis

The candidate must work closely with the supervisor in making the corrections. The candidate must follow all the instructions passed on to him by the examiners. Ideally, the candidate will submit two (2) unbound copies of the corrected thesis to the Head of Department who will pass them on to the internal examiners for certification.

### Certification of Corrected Thesis

The internal examiner(s) have to be satisfied that all the recommended modifications/corrections have been made by the candidate. Thereafter they will all sign a joint statement certifying that the candidate has made all the recommended corrections. Without this

certification, the result of the examination cannot be presented to the College of Postgraduate Studies Board for approval. A candidate must work hard to effect the necessary corrections and modifications.

#### Submission of Final Copies of Thesis

After a thesis has been successfully examined and all recommended corrections have been effected, the student shall forward six copies (hard and soft) to the Department, which shall forward same to the College of Postgraduate Studies.

#### Petition over Grading of Examination Script/Outcome of Viva Voce

Any student aggrieved about the grading of his/her examination script or the outcome of the oral examination of his/her thesis shall:

- (a) Petition the Head of Department who shall in turn refer the petition to the Department Postgraduate Committee for necessary action.
- (b) The Department Postgraduate Committee shall consider the findings and recommendations and make appropriate recommendations to COPOS through the College of Postgraduate Studies Committee.
- (c) Where the petition is found to be frivolous, the students may face disciplinary action.

#### EFFECTIVE DATE OF AWARD OF DEGREES

The date of award of degrees shall be the date the College of Postgraduate Board approves the examination results.

#### Statement of Final Result

Statement of final result is issued by the COPOS. No student shall approach the department for of result.

#### Assessment

Assessment of students' should be based on:

- g. Examinations
- h. Term Paper
- i. Oral presentations and problem solving exercises
- j. Assignments
- k. Group project works

## 1. Thesis

### Continuous Assessment

Continuous assessment may be done through essays, tests, term papers, tutorial exercises, quizzes and home works.

- d. Scores from continuous assessment shall constitute 30% of the final marks for courses which are primarily theoretical.
- e. For courses which are partly term paper presentations and partly theoretical, scores from continuous assessment shall constitute 30% of the final marks.
- f. For courses that are entirely term paper presentations, continuous assessment shall be based on a student's term paper for reports and shall constitute 100% of the final mark.

### Tutorial

There should be one hour of tutorial for every four hours of lecture. Thus a course of one credit unit should comprise 12 hours of lecture and three hours of tutorials.

### Term Papers

There would be term paper presentations which shall form part of the graduation requirements.

## PROGRAMME STRUCTURE

The PGD programme requires a minimum of 30 credit units made up as follows:

- |  |          |
|--|----------|
| • Thirteen core courses (2 credits each) | 26 units |
| • Research Project                       | 4 units  |
| • Total                                  | 30 units |

Core Courses	Credit Units
BUS 701Principles of Management	2
BUS703 Principles of Accounting	2
BUS705Introduction to Public Administration	2
BUS707 Fundamentals of Marketing	2
BUS709Principles of Finance	2
BUS711Principles of Micro Economics	2
BUS713Principles of Macro Economics	2
BUS720 Human Resource Management	2
BUS722Computers in Organizations	2
BUS724Business Statistics	2
BUS726 Business Mathematics	2
BUS 728 Research Methodology	2

BUS730 Global Economic Environment

2

Research Project

4

## SECTION 7: COURSE CONTENT

The courses required on the programme are stated below:

### First Semester

S/N	COURSE CODE	COURSE TITLE	UNITS	STATUS
1	BUS701	Principles of Management	2	C
2	BUS703	Principles Accounting	2	C
3	BUS705	Introduction to Public Administration	2	C
4	Bus707	Fundamentals of Marketing	2	C
5	BUS709	Principles of Finance	2	C
6	BUS 711	Human Resource Management	2	C
7	BUS713	Human Resource Management	2	C
Total			14 Units	

### Second Semester

1	BUS720	Human Resources Management	2	C
2	BUS722	Computers in Organizations	2	C
3	BUS724	Business Statistics	2	C
4	BUS726	Business Mathematics	2	C
5	BUS728	Research Methodology	2	C
6	BUS730	Global Economic Environment	2	C
7	BUS798	Research Project	4	C
TOTAL			16	

## Course Description

BUS701 Principles of Management

2Credits

The development of Management thought; theories and models of management; the manager and his environment; organization structure and relationships; leadership and motivation; organization development, the management functions and procedures; planning; organizing; directing; controlling etc.

BUS703 Principles of Accounting

2Credits

This course deals with the underlying theory of double entry book keeping. Topics include: the nature, scope and purpose of accounting, theories and mechanics of double entry, book-keeping statements, fixed accounts, funds flow statements, account of not-for-profit organizations, incomplete records.

**BUS 705 Introduction to Public Administration**

**2Credits**

The course focuses on the emergence of public administration; problems of organization, the bureaucratic phenomenon and social change. The basics of public policy formulation and implementation processes by bureaucracies; accountability and efficiency in public administration.

**BUS 707 Fundamentals of Marketing**

**2Credits**

This course focuses on the appreciation of functions and channels of marketing and its role in the corporate environment. Major elements of marketing strategy in relation to product development; distribution channels; advertising, sales promotion and pricing are examined in detail.

**BUS709 Principles of Finance**

**2Credits**

This provides a systematic and vigorous examination of the theoretical framework of financial/investment management analysis. Main topics include: The economic theory of choice: investment decision and appraisal techniques, financial requirements planning, working capital management, financial ratio, dividend decision, cash budgeting, fixed assets and equity management funds flow statement, and emphasis on financial markets.

**BUS 711 Human Resource Management (see department of economics)**

**2 Credits**

**BUS 713 Human Resources Management (see department of economics)**

**2 Credits**

**BUS 720 Human Resource Management**

**2 Credits**

Topics to be addressed in this course include Nature and scope of HRM; strategies and management practices in manpower planning; staffing; human resource planning; human resource training and development; performance measurement and management, career planning and employee welfare; compensation designs and reward management.

BUS722 Computers in Organizations 2 Credits

This course explains the why and how of computers, the use of computers in business and other organizations; Data transmission, nature, speed and error detection. It also examines systems analysis and design, the programming process; problem definition, flow charting and decision table.

BUS 724 Business Statistics 2Credits

This course covers basic concepts in descriptive and inferential statistics and their use in empirical research.

BUS 726 Business Mathematics 2Credits

Topics in this include: Revision of basic algebra; set theory; permutations and contributions; annuity, cash flow; functions and functional relationship; analysis of marginal utility and integral calculus; partial and total derivatives. In discussing these topics, emphasis will be on their specific relevance to business/management contents.

BUS728 Research Methodology 2Credits

The objective of this course is to introduce the students to scientific enquiry through gathering and analysis of relevant data.

BUS 730 Global Economic Environment 2Credits

Topics to be treated include Nigeria and the global economy, the implications of the free market economy on business; governments, consumers, and labour, strategic aspects of international trade, globalization and international institutions; multilateral negotiations; lessons from the Asian tigers.

BUS 798 Research Project 4 Credits

A research based study and report on an acceptable management problem area approved by the supervisor and the Head of Department.

#### Teaching Facility

#### Course delivery

Class session will consist of lectures, class discussion, case analysis, research and other form of teaching.

#### Language Instruction

The mode for communication shall be English language

Attendance policy

A student is expected to attend not less than 80% of the scheduled classes before he can qualify to sit for the end of semester examinations.

## **GENERAL REGULATIONS GOVERNING ADMISSION**

### **Admission Requirements**

To qualify for admission into this programme, a candidate should possess:

- viii. Five (5) credit passes including English and Mathematics at the 'o' Level as basic requirement.
- ix. A good honours degree with a minimum of second class (lower) in any discipline from a University recognized by the Senate of Caleb University. However, candidates with lower classification may be considered on individual merit based on a minimum of 3 years of relevant post qualification experience.
- x. A Postgraduate Diploma in Business Administration from a recognized University passed with a minimum of Upper Credit.
- xi. Any other qualifications recognized by the Senate of Caleb University
- xii. A minimum of one year managerial/administrative experience.

### **Transfer**

Students, who transfer from other universities shall be credited with only those courses, deemed relevant to the programme, which they have already passed prior to their transfer. Such students shall however be required to pass the minimum number of units specified for graduation for the number of sessions he/she has spent in Faculty; provided that no student shall spend less than four semesters in order to earn a degree. Students who transfer for any approved reason shall be credited with those units passed that are within the curriculum. Appropriate decisions on transfer cases shall be subjected to the approval of Senate on the recommendation of the Faculty. If anyone is on probation for 2 consecutive semesters, he/she shall be required to withdraw from the programme.

### **Withdrawal:**

A candidate whose CGPA is below 2.40 at the end of a particular year of probation shall be required to withdraw from the University.

## **REGISTRATION AND MATRICULATION PROCEDURES**

### **(b) Registration Procedure**

Students shall normally complete registration for courses for the semester not later than two weeks after the start of the semester. A student cannot withdraw from a course after a third of it has been given without permission from the Head of Department. A student who

withdraws after this time or who fails to sit for the final examination without reasons acceptable to the Senate shall be deemed to have failed that course.

### **5.1 PROGRAMME STRUCTURE M.Sc. Business Administration**

The courses required on the programme are classified into two categories. The first category is made up of core or compulsory (C) courses which must be taken and passed by students. The courses cover foundation and advanced courses in the basic areas of management/business administration, accounting, economics, finance, human resources management, and marketing. The second category of courses consists of elective (E) courses, including the specialization courses which are taken in the fourth semester. Each course carries 3 credit units, which requires 45 contact hours with the Resource Person of the course. The requirement generally determines the length of the semester which must allow the specified number of contact hours to be met. Elective courses would be offered “if” they are subscribed to by a minimum of five students each.

## **6 GRADING SYSTEM, STUDENTS PROBATION, WITHDRAWAL AND EXPULSION**

### **6.7 Grading System:**

- v. Continuous Assessment marks shall be included in the total examination marks. For theoretical courses, the continuous assessment component shall account for 30% while the examination component shall account for 70%.
- vi. The pass mark for all written examinations shall be 50%.
- vii. The grading system shall be as follows:

Marks Awarded	Letter Grade	Grade
70-100	A	<b>5</b>
60-69	B	<b>4</b>
50-59	C	<b>3</b>
0-49	F	<b>0</b>

- viii. All semester examination question papers and answer scripts shall be moderated by the external examiner (s).

To proceed to the thesis stage of the programme, a student must have successfully completed the course work and successfully defended the research proposal.

## **Assessment**

Assessment of students' should be based on:

- m. Examinations
- n. Term Paper
- o. Oral presentations and problem-solving exercises
- p. Assignments
- q. Group project works
- r. Thesis

## **Continuous Assessment**

Continuous assessment may be done through essays, tests, term papers, tutorial exercises, quizzes and home works.

- g. Scores from continuous assessment shall constitute 30% of the final marks for courses which are primarily theoretical.
- h. For courses which are partly term paper presentations and partly theoretical, scores from continuous assessment shall constitute 30% of the final marks.
- i. For courses that are entirely term paper presentations, continuous assessment shall be based on a student's term paper for reports and shall constitute 100% of the final mark.

## **Tutorial**

There should be one hour of tutorial for every four hours of lecture. Thus a course of one credit unit should comprise 12 hours of lecture and three hours of tutorials.

## **Term Papers**

There would be term paper presentations which shall form part of the graduation requirements.

### **4.2 Students' Probation, Withdrawal and Expulsion:**

At the expiration of the period for a given programme as indicated in Retention Policy, any student who has not completed his/her programme shall be withdrawn from the Academy.

However, exceptional circumstances, application for extension to complete the programme may be entertained. Such extension shall not exceed a period of one year (2 semesters), and is subject to approval by the Postgraduate School Board.

## **Change of Programme**

No change is allowed once a candidate is admitted to pursue a particular course of study.

## **Duties/Responsibilities of the Student**

It is mandatory for a student to”

- d) Consult his/her supervisor regularly
- e) Register and pass all the prescribed examinations
- f) Adhere strictly to all regulations governing his/her postgraduate candidature in the Academy..

### **Change of Supervisor**

A student who encounters any serious problem with his/her supervisor shall apply to the Department. The Departmental Postgraduate Committee shall invite the views of the supervisor and the student Recommendations shall be made through the Postgraduate Committee to the College of Postgraduate Studies that a new supervisor be appointed, or there be no change or an additional supervisor be appointed.

## **RESEARCH THESIS**

### **Research Policy**

- iv. A student admitted for M.Sc. Programme shall within the first year of registration submit and defend a proposal of the research interest of his/her choice before the Departmental Postgraduate Committee. When approved, the proposal is forwarded to the PG School Committee Postgraduate through the College Postgraduate Studies Committee.
- v. The Departmental Postgraduate Committee will then complete the appropriate forms for registration of title of proposed research and list of supervisors, and forward same to the Dean of College of Postgraduate Studies through the College Postgraduate Studies Committee for approval.
- vi. The title of thesis and the supervisor(s) once approved cannot be changed without the approval of the College of PG Studies Committee.

### **Methodology and Thrust**

- viii. Each student shall prepare a research thesis in accordance with the standard approved by COPOS for the relevant discipline.
- ix. The thesis must be the student's original piece of work which shows good scholarship and contribution to knowledge.
- x. A student shall not be permitted to submit for the award of degree, a thesis on account of which a degree has been previously conferred on him in this or any other institutions.

- xi.** The thesis may consist of several chapters. However the chapters must be linked up properly in accordance with the guidelines for the preparation of thesis for the relevant discipline.
- xii.** The thesis for Master's degree shall not be more than 45,000 words in length and must be accompanied by a short abstract of not more than 500 words.
- xiii.** If any part of a thesis is to be published before the award of the degree in view it must be indicated that the content of the publication is in partial fulfillment for the award of a higher degree in Caleb University
- xiv.** A student shall be required to sign a declaration that the thesis represents his/her own original work and that it has not been presented elsewhere for the award of any degree.

### **EXAMINATION OF RESEARCH PROPOSAL**

Every postgraduate student is given a chance to present his draft research proposal at the staff/postgraduate students' seminar. The aim is to enable a student to benefit from the comments, criticisms and suggestions of others before he/she produces the final version of his/her proposal for examination.

A research proposal is mandatory for M.Sc. Management candidates. For this purpose, there shall be an examination panel comprising the Head of Department, the Postgraduate Coordinator, the student's supervisor, and all academic members of the department from the rank of senior lecturer and above. The HOD/postgraduate coordinator will appoint/select **chairman** for the panel. The student will be interviewed orally by the panel after reading through the research proposal.

No student should embark on study without prior approval of research proposal. The panel must satisfy itself that the research proposal is viable; that there is indeed a problem to be investigated; that the problem is of a Management in nature; and that the research design, the variables to be measured, the sampling frame and size are appropriate and adequate to meet the needs of the study. Sometimes, a research proposal may be approved subject to the candidate's making some modifications or orienting the study in a certain way. A student must abide by such instructions because these would be referred to later in approving thesis for oral examination.

## **Leave of Absence**

A student whose study area is outside Lagos may need to stay away from the department for some time in order to carry out fieldwork. For this purpose, a student is required to fill the Leave of Absence Form which must be endorsed by the supervisor and the Head of Department before the student goes away.

## **Execution of Research Project**

It is the duty of each student to carry out fieldwork process and analyze the data and interpret the results. But the supervisor must be kept informed as the work progresses. In the end, a student must be able to produce on request, the raw data and the processed or computer analyzed data. The data collection exercise calls for transparency, honesty and integrity on the part of the student. In fact, this is one good reason why a wise student will keep close to the supervisor so that there will be no doubt at all about the integrity of the data collected. PhD Students are expected to present three seminar papers on the research work apart from research proposal during which critical assessment of work procedures methodologies and findings shall be carried out before viva voce/oral examination. This may be slated during the staff/postgraduate students' seminars.

## **The Oral Examination**

The viva voce/oral examination is to test the students' understanding and grasp of the work. The student is expected to demonstrate that he/she really carried out the study and mastered all its key elements. The student's competence in carrying out the study and his preparation for the oral examination should show in the confidence displayed in his discussion of any issues that may be raised during the oral examination.

The oral examination is also a learning process for the students. He/she should listen to ideas, views suggestions offered by the examiners as these may be useful to him/her; if not in improving the thesis already written but, in his future research activities. Examiners, in addition to any other points they may care to raise, are required to comment specifically on (i) adequacy of research design; (i) the execution of the research project; (ii) knowledge and use of existing literature (iv) the nature of the specific contributions to knowledge made by the student; and (v) the technical presentation and literary quality of the thesis.

a. If the student satisfied the examiners in oral examination and the thesis is acceptable subject to minor corrections, such corrections shall be carried out within six (6) weeks to the

satisfaction of the Chief Examiners shall forward same to the College of Postgraduate Studies through the College of Postgraduate Studies Committee within two (2) weeks.

b. If on the other hand, the student satisfies the examiners in oral examination but the thesis is unacceptable in its present form due to major corrections, such corrections shall be effected within twelve (12) weeks to the satisfaction of the external examiner. The HOD shall then forward same to the examiner. Dean, College of Postgraduate Studies through the College of Postgraduate Studies' Committee.

c. If the thesis is satisfactory but the student fails in oral or written examination, he/she may be recalled for another oral examination within a semester on the approval of COPOS. However, the examination cannot be repeated more than once.

### **Revision of Thesis**

The candidate must work closely with the supervisor in making the corrections. The candidate must follow all the instructions passed on to him by the examiners. Ideally, the candidate will submit two (2) unbound copies of the corrected thesis to the Head of Department who will pass them on to the internal examiners for certification.

### **Certification of Corrected Thesis**

The internal examiner(s) have to be satisfied that all the recommended modifications/corrections have been made by the candidate. Thereafter they will all sign a joint statement certifying that the candidate has made all the recommended corrections. Without this certification, the result of the examination cannot be presented to the College of Postgraduate Studies Board for approval. A candidate must work hard to effect the necessary corrections and modifications.

### **Submission of Final Copies of Thesis**

After a thesis has been successfully examined and all recommended corrections have been effected, the student shall forward six copies (hard and soft) to the Department, which shall forward same to the College of Postgraduate Studies.

### **Petition over Grading of Examination Script/Outcome of Viva Voce**

Any student aggrieved about the grading of his/her examination script or the outcome of the oral examination of his/her thesis shall:

(a) Petition the Head of Department who shall in turn refer the petition to the Department Postgraduate Committee for necessary action.

(b) The Department Postgraduate Committee shall consider the findings and recommendations and make appropriate recommendations to COPOS through the College of Postgraduate Studies Committee.

(c) Where the petition is found to be frivolous, the students may face disciplinary action.

### **Effective date of Award of Degrees**

The date of award of degrees shall be the date the College of Postgraduate Board approves the examination results.

### **Statement of Final Result**

Statement of final result is issued by the COPOS. No student shall approach the department for any statement of result.

### **Probation, Expulsion, Withdrawals**

Caleb University's policy on probation, withdrawals and Expulsion of Students as follows:

#### **Students' Probation, Withdrawal and Expulsion:**

At the expiration of the period for a given programme as indicated in Retention Policy, any student who has not completed his/her programme shall be withdrawn from the Academy.

However, exceptional circumstances, application for extension to complete the programme may be entertained. Such extension shall not exceed a period of one year (2 semesters), and is subject to approval by the Postgraduate School Board.

### **Assessment**

Assessment of students' should be based on:

- s. Examinations
- t. Term Paper
- u. Oral presentations and problem solving exercises
- v. Assignments
- w. Group project works
- x. Thesis

### **Continuous Assessment**

Continuous assessment may be done through essays, tests, term papers, tutorial exercises, quizzes and home works.

- j. Scores from continuous assessment shall constitute 30% of the final marks for courses which are primarily theoretical.
- k. For courses which are partly term paper presentations and partly theoretical, scores from continuous assessment shall constitute 30% of the final marks.
- l. For courses that are entirely term paper presentations, continuous assessment shall be based on a student's term paper for reports and shall constitute 100% of the final mark.

### **Tutorial**

There should be one hour of tutorial for every four hours of lecture. Thus a course of one credit unit should comprise 12 hours of lecture and three hours of tutorials.

### **Term Papers**

There would be term paper presentations which shall form part of the graduation requirements

## **COURSES OFFERED**

### **Courses Offered for Full-time M. Sc in Management/**

### **Credit Units**

#### **Business Administration:**

#### **First Semester (Core Courses)**

BUS 801 Management Theory	3
BUS 803 Global Economic Environment	3
BUS 805 Strategic Management	3
BUS 807 Organizational Behaviour	3
BUS 809 Management Information System	3
BUS 811 Research Methodology	3
BUS 813 Quantitative Analysis	3

#### **Second Semester (Core Courses)**

BUS 812 Economic Theory	3
BUS 814 Strategy and Structure	3
BUS 816 Comparative Management	3
BUS 818 Diversity and Conflict Management	3

BUS820 Rewards and Compensation Management	3
<b>Third Semester</b>	
BUS831 MSc Seminar	3
<b>Elective Courses</b>	
BUS 824 Business Policy	3
BUS 826 Economy and Industrial Analysis	3
BUS 828 Operations Management	3
BUS 830 Corporate Finance	3
BUS 834 Human Resource Management	3
<b>4<sup>TH</sup> SEMESTER COURSES (Electives)</b>	
BUS 898 Thesis	6
<b>TOTAL</b>	<b>51 UNITS</b>

## **COURSE DESCRIPTION**

### **BUS 801 Management Theory 3Units**

The intent of this course is to expose the students to basic issues and theories with regards to the practice of management in contemporary organizations. It examines the introduction and integration of the evolution and the development of theories and concepts, and their application in the field of management. Students are expected to critically analyze the different perspectives within the field of Management. Development of Management models (Rational goals, internal process, human relations and open systems models): organizational effectiveness, environments, technology design and performance; images of organizations and implications for research and practice; organizational ecology; institutional theories; organizational culture and climate; organizational learning and globalization of organization theory. The intent is to build a theoretical foundation for the understanding of Management issues, and provide guidance for research activities in the programme.

**BUS 803 Global Economic Environment****3Units**

This situates Nigerian Economy within the broader global economy. It examines the implementation of the movement towards free market economy on stakeholders including business, government, consumers, labour and public. The course takes a multidisciplinary approach drawing from international politics, economy, and finance, cross-cultural and business management. Topics to be covered include Strategic aspects of international trade, globalization / international institutions, industrialization strategies, determinants of economic growth and poverty reduction in Africa; global power and wealth distribution; lessons from Asian and Mexican financial crises; multilateral negotiations, global culture and information technology, exchange rates / inflation/interests rates.

**BUS805 Strategic Management****3 Units**

This course deals with theoretical and practical aspects of strategy formulation and implementation. Attention is placed on the art of strategic thinking leading to creativity and innovation as well as the rational strategic planning process. Among the topics covered are the following: Analyzing industry structures and dynamics; assessing positions, actions and reactions of competitors; processes of strategic planning, technology strategy and e-business, process re-engineering and corporate turnaround. Case writing and analysis are fundamental to this course.

**BUS 807 Organizational Behaviour****3 Units**

This course is designed to aid students in understanding organizations both at the Micro and Macro levels. Specifically, this course examines rigorously, the structure, function, and people in organizations and society. Topics include organizational dynamics – micro and macro perspectives; organizations and the systems concept; organizational entry, motivation and job satisfaction, bases of individual attitudes and behaviours in organizational settings, individual and their relationships in organizations; and group and inter group behaviours.; organizational structures; Typology/Taxonomy of organizations; organizational efficiency and effectiveness; organizational politics; organizational change and development; technology and organizational structure; organizations and environment; organizational design.

**BUS 809 Management Information System (MIS)****3 Units**

This course is designed to expose students to the practical application of computers to management information processing. The course provides the steps followed in the utilization

of electronic data processing (EDP) system in producing financial and management information, in feasibility studies, system analysis, system design and system implementation for computerized accounting system. Among other things, the course will examine the following issues: Elements of computing mechanical and electronic, types of computers and their applications, computer programming using either COBOL or FORTRAN, data processing manual and mechanized systems, system analysis and design, evaluation and administration of MIS with emphases on computer based systems, meaning of information technology and its application in business finance and management.

### **BUS811 Research Methodology**

3 Units

This course is designed to sharpen the students' skills and appreciation of organized enquiry. Topics to be covered include the following: Meaning and nature of research; comparison between research, common sense and science; Types of research; the research cycle; selecting research topics, problem and hypotheses formulation, Research design; research instruments and Data collection, Data Analysis and interpretation; research report, Research and the issue of relevance; ethical issues in research.

### **BUS813 Quantitative Analysis**

3 Units

Analytical tool is very vital to acquisition and development of managerial skill. Hence, there is the need to expose students to basic quantitative analysis and reasoning, and its application to management decision making. Topics to be covered shall include set theory; basic concepts in probability; probability distributions; decision theory; forecasting models and techniques, linear programming (graphic and simplex methods); introduction to operation research; network models and simulation.

### **BUS 830 Corporate Finance**

3 Units

This course is designed to introduce students to an advanced treatment of theories and its three decision areas of financing, investment and dividend. The course therefore examines the effects of various corporate financial policy decisions (e.g. capital structure, working capital, and capital budgeting and dividend policies) on the values of the firm. Issues to be thus examined include:- Financial structure, capital structure, market valuation of risky assets under uncertainty, risk and uncertainty management strategies, capital budgeting, operation of capital market and money market, analysis for investment in securities, portfolio theories and the concept of diversification, efficient market theory, cost of capital, dividend policy, corporate

financial problems e.g. leasing, mergers, and of new securities, the institution of Zakat, the insurance debate and the non-interest banking and financial system.

### **BUS834 Human Resource Management**

3 Units

This course will familiarize students with the basic responsibilities of the human resources function in organizations. The course covers topics such as strategic planning, job analysis, recruitment, selection, training and development, career planning, performance appraisal, compensation and international HRM. Students will learn about the various tools and techniques available to human resources professionals (such as environmental scanning, Delphi methods and transition probability matrices, performance appraisal instruments, selection techniques, job evaluation methods, and some of the various applications of needs analysis) through the use of lectures, case analyses, student presentations, and the text book with supplemental readings.

### **BUS 818 Diversity and Conflict Management**

3 Units

This course deals with managing and resolving workplace conflicts and examines dispute resolution and conflict management in both various and non-various settings. The course covers two related topics: (1) third-party dispute resolution, including alternative dispute resolution (ADR). It focuses primarily on the use of mediation and arbitration but also deals with other dispute resolution techniques, such as fact –finding, facilitation, mini-trials, early neutral evaluation peer review, and the ombuds function; (2) conflict management in organizations, including the recent development of conflict management systems. The course reviews the factors that have caused the growth reviews the factors that have caused the growth of ADR and conflict management systems, and it provides instruction on the design, implementation and evaluation of such systems.

### **BUS812 Economic Theory** (see department of economics)

3 Units

### **BUS 820: Rewards and Compensation Management**

3 Units

Compensation is the hallmark of contractual relationship between the employer and the employees in an employment setting. This made employees' evaluation inevitable, the report there of is a pointer to decision on employees' pay based on required, assigned or targeted work for specific personnel on supposed grade or level.

The employer wants to maximize profit, while employees required commensurate pay for labour supplied

For organizational objective to be achieved, a structured reward and compensation system that will motivate employees must be in place. This will enhance commitment and unwavering loyalty of the employees.

As a taught course, Reward and Compensation Management should be should touch on:

Definition of reward and compensation and its components. Principles of rewards system, the theories and motivational theories. Objectives and importance, factors influencing pay structure, job evaluation, Wage structure and Payment to Management

**BUS 826 Economy and Industrial Analysis**

3 Units

The basis of formulating strategy is the assessment of the environment in all its dimensions. The course will focus on the study use of concepts and techniques used in environmental and industry analysis and in identifying trends and changes in the environment. These will include, economic, social and technological forecasting, Delphi methods, Scenario.

**BUS814 Strategy and Structure**

3 Units

The course will build on a base of the study of organizations and focus on the ways organizations are structured to suit the evolving strategies and the mutual impact of strategy and structure.

**BUS 828 Operations Management**

3 Units

Topics include aggregate planning methods with emphasis on the mathematical model; seasonal production planning and work force planning. Integration of planning and scheduling levels in hierarchical systems. Determination of capacity in services systems; services design and services mix problems.

Concepts, models and theories relevant to the management of the processes involved to provide goods and/or services to consumers in both the public and private sectors; production, inventory and distribution functions, scheduling of services or manufacturing activities; facilities planning and device of technology.

**BUS 816: Comparative Management:**

3 Units

Students will be introduced to the Management Principles and Practices in different Companies-Japanese Management as opposed to Western Management Practices Management in the public and private sectors.

**BUS 820: Rewards and Compensation Management****3 Units**

Compensation is the hallmark of contractual relationship between the employer and the employees in an employment setting. This made employees' evaluation inevitable, the report there of is a pointer to decision on employees' pay based on required, assigned or targeted work for specific personnel on supposed grade or level.

The employer wants to maximize profit, while employees required commensurate pay for labour supplied

For organizational objective to be achieved, a structured reward and compensation system that will motivate employees must be in place. This will enhance commitment and unwavering loyalty of the employees.

As a taught course, Reward and Compensation Management should be should touch on:

Definition of reward and compensation and its components. Principles of rewards system, the theories and motivational theories. Objectives and importance, factors influencing pay structure, Job evaluation, Wage structure and Payment to Management

**BUS898 Research Project****6 Units**

A research based study and report on an acceptable management problem area approved by the supervisor and the Head of Department.

**Duration of the programme****4 Semesters****Teaching Facility****Adequately available****Course delivery****Very Effective**

Class session will consist of lectures, class discussion, case analysis, research and other form of teaching.

**Language Instruction**

The mode for communication shall be English language

**Attendance policy**

A student is expected to attain not less than 80% of the scheduled classes before he can qualify to sit for the end of semester examinations.

## **56.2 GENERAL INFORMATION M.Phil/Ph.D in Management/Business Administration**

### **MISSION OF THE PROGRAMME**

“To provide opportunities for respectable, qualitative and relevant university education for regular and mature students, with due recognition of gender sensitivity for good and balanced societal development”

### **PHILOSOPHY OF THE PROGRAMME**

The philosophy of the programme is to provide graduate education and training in Management which develop and deepen the spirit of enquiry and responsibility in the students, to take on teaching, research in higher institutions, as well as management responsibilities in public and private sectors of the national and global economies.

### **AIMS and OBJECTIVES of the PROGRAMME**

This Hand is prepared for M.Phil/Ph.D in Management

The objectives of the programme are to provide training in Management/Business Administration research for those whose future careers lie in teaching and research at the University and other tertiary institutions and for those who may have to operate in research and development environments; in core and specialized areas of Management that would equip graduates to provide quality consultancy services to both local and international clientele; and aimed at providing critical manpower in the area of Management needed for national development.

Regulations Governing Award of Degree

### **GRADING SYSTEM, STUDENTS PROBATION, WITHDRAWAL AND EXPULSION**

#### **Grading System:**

- ix.** Continuous Assessment marks shall be included in the total examination marks. For theoretical courses, the continuous assessment component shall account for 30% while the examination component shall account for 70%.
- x.** The pass mark for all written examinations shall be 50%.
- xi.** The grading system shall be as follows:

Marks Awarded	Letter Grade	Grade

70-100	A	<b>5</b>
60-69	B	<b>4</b>
50-59	C	<b>3</b>
0-49	F	<b>0</b>

- xii. All semester examination question papers and answer scripts shall be moderated by the external examiner (s).

To proceed to the thesis stage of the programme, a student must have successfully completed the course work and successfully defended the research proposal.

### **Assessment**

Assessment of students should be based on:

- y. Examinations
- z. Term Paper
- aa. Oral presentations and problem-solving exercises
- bb. Assignments
- cc. Group project works
- dd. Thesis

### **Continuous Assessment**

Continuous assessment may be done through essays, tests, term papers, tutorial exercises, quizzes and home works.

- m.** Scores from continuous assessment shall constitute 30% of the final marks for courses which are primarily theoretical.
- n.** For courses which are partly term paper presentations and partly theoretical, scores from continuous assessment shall constitute 30% of the final marks.
- o.** For courses that are entirely term paper presentations, continuous assessment shall be based on a student's term paper for reports and shall constitute 100% of the final mark.

Grade Points Average (GPA) Computations

N.A

## **STUDENTS' ACADEMIC STANDING STATUS**

Good Standing

Probation

Withdrawal

N.A

## **GRADUATION REQUIREMENTS**

Duration of degree programme

N.A

## **DEGREE PROGRAMME AND REQUIREMENTS**

### **(a) M.Phil/PhD Business Administration**

M.Phil. Business Administration Programme is open to candidates who do not qualify for a direct admission into the Ph.D programme in Business Administration because of the following:

- (i) Having MSc Business Administration with a CGPA of 3.00-3.49 on a 5.00 point grading scale or 50%-54.99%.
- (ii) Holders of B.Sc. Business Administration, who, however, have their M.Sc. degree in a related programme such as Economics, Finance, with a CGPA of not less than 3.50-3.99 on a 5.00 point grading scale or 55%-59.99%
- (iii) In addition, candidate must possess 5 credit passes, including credit passes in English Language and Mathematics.
- (iv) When a candidate scores 60% or have a CGPA of 4.00 at the end of M.Phil such candidate can proceed on PhD.

Where a candidate does not qualify to proceed to Ph. D programme (having a CGPA of 3.00 - 3.99) after the completion of M. Phil courses of 18 units of course work and thesis of 12 units (total of 30 units), such candidates will be awarded the degree of M. Phil. Management.

### **(b) Direct PhD Business Administration**

Candidates for direct admission into the Ph.D Business Administration programme must possess either of the following from a recognized University:

- i. M.Sc. in Management, or Business Administration with a minimum CGPA of 4.0 on a 5.00 point grading scale (i.e. B grade or 60%).
- ii. M.Phil. Accounting, Finance, Business Administration.

### **COURSE STRUCTURE AND DESCRIPTION**

M. Phil. Programme requires a minimum of 30 credit units made up as follows:

6 courses (3 credits each)	18
Thesis	12
Total	30

#### **Expected duration for M.Phil. Programme**

Full-time: A minimum of two (2) semesters, a maximum of six (6) semesters

For extension beyond the specified maximum period, a special permission of the Postgraduate Board shall be required.

### **COURSE DESCRIPTION**

#### **BUS 845 International Business Management**

3 Units

The course focuses on the international dimension of business, including trade, financial and foreign investment patterns, and problems and policies at the corporate and national levels. It covers theoretical, institutional and case analyses of major issues, including the impact of international codes and organizations on corporate policies in home and host countries, the effect of changing governmental policies on strategies for managing international operations. Using a wide range of data sources, cases and other empirical studies, each student will prepare an individual study of a specific company and country.

#### **BUS 835 Seminar in Business Environment**

3 Credits

Students will need to submit their various topics for presentation in the area of interest

**BUS 837 Government Business and Society****3Credits**

The course will examine the area of government business and business-society relations as one of the critical areas where the general manager spends a considerable amount of time. The responsibilities of the firm in these areas, the role of general manager, the skills needed and ethical and philosophical issues will be discussed.

**BUS 839 Seminar in Public Enterprises Management****3 Credits**

Students will need to submit their various topics for presentation in the area of interest.

**BUS 841 Advanced Marketing Theory****3 Credits**

The objective of this course is to provide students with knowledge of advanced marketing theory and research. Marketing is an applied discipline that is informed by professional scholarly research in marketing and related fields (e.g. psychology, economics). This course provides an in depth review of marketing theory and research, an advanced review of influential theories in the development of marketing thought, and an overview of contemporary theories and research in marketing. Reading materials shall largely be scholarly articles in refereed journals

**BUS 843 Multinational Enterprises****3 Credits**

This course covers World Trade Organization (WTO) and multilateral trade agreements. The course will present an overview of the WTO and then focus on multilateral trade negotiations. Multilateral trade agreements shall be studied in four parts: trade in goods, trade in services, trade-related aspects of intellectual property rights and institutional issues. Agreements on trade in goods are further divided in to three subcategories: market access, customs-related issues and trade rules. Lastly, this course will look at the future challenges facing the current multilateral trading system. Although this course deals with trade agreements, it will put more emphases on economic interpretation rather than the legal aspects. For this course, outside scholars and experts from policy, academic, and private sectors may be invited as special guest lecturers.

**MPhil/ PhD candidates must have offered and passed 18 units of MPhil before proceeding to take the PhD course.**

**Expected duration of M.Phil/PhD programme:**

- (a) Full Time: A minimum of 8 semesters and a maximum of twelve (12) Semesters
- (b) For extension beyond the specified maximum period, a special permission of the Postgraduate Board shall be required.

MPhil/ PhD Programme requires minimum of 54units made up as follows:

**14 units (3 credits each) - covering 6 courses of MPhil and 8 courses of PhD - total 42 units**

## **COURSE DESCRIPTION**

### **BUS 901 Management thought and Philosophy 3 Credits**

This course examines the idea and evolution of management as a field of endeavour.

### **BUS 903 Seminar in Strategic Management and Entrepreneurship**

Students will gain a well-developed understanding of business enterprises and the entrepreneurial and strategic thinking that drives them in a dynamic, competitive regional, national, and global economy. Students will learn to apply entrepreneurial and strategic management practices (e.g., using case analysis) to organizations of varying sizes. An integral component, futures studies, shall involve an introduction into thinking about the future, the foundation of the field, its methodologies, link to planning, decision-making, strategy and public policy. The relationship between core competences (at the company level) and key success factors at the industry shall be examined.

### **BUS 905 Advanced Research Methodology 3Credits**

The objective of this course is to deepen the understanding of the students, of the traditional scientific research methods. Topics to be discussed include Research in Social, Physical and natural sciences; problems of research in developing countries; common errors in research; types of research; and research in practice: selecting a topic, problem and hypotheses formulation, research design, instruments and data collection data analysis and interpretation, research report, etc

The objective is for students to gain confidence in the applicability and relevance of non-quantitative methods in our research environment, where the tradition of believing in "objective measurement" is strong. Qualitative research methods open up for us a class of research questions that is not accessible within the "normal" scientific method. That is, as researchers, we can ask new questions if we have a richer repertoire of tools, both the qualitative and the quantitative from which to choose.

Topics to be discussed include the basics of qualitative research methods and research approaches. Some qualitative research approaches, such as phenomenography, activity theory

and ethnography, data collection methods such as interviews, field studies and rapid rural appraisal, and observations. Evaluating collected data.

### **BUS 922 Advanced Conflict Management**

**3Credits**

This course is designed to provide an understanding of intercultural management useful for international management and trade negotiations. Participants are expected to study the different ways various cultures think, communicate and behave, particularly within business contexts, in order to develop a necessary level of cross-cultural competency. Today's global business implies co-operating, coordinating, negotiating and supervising, using management processes appropriate to the cultural context. The student will explore cultural implications in those management processes, as well as its impact on team-building, ethics, conflict resolution and creative problem-solving. Students will also study their own culturally-based perceptions, patterns of thinking and behavior, communication styles, values and how they can be adapted to an intercultural context. Although the course will primarily deal with cultural differences in national culture context, it will also address cultural differences in gender and in organizational level as long as they affect the global business environment.

Foundations and Theories of Conflict: Theories of Conflict Resolution - An interdisciplinary approach to examination of conflict and conflict resolution theory;

Responses to Conflict - An examination of the different approaches to conflict resolution represented by two party negotiation, facilitative processes such as mediation, the various evaluative processes, adjudicative processes such as litigation and binding arbitration, and the various hybrid processes; Negotiation; Mediation Skills Clinic - A basic introduction to mediation skills, theory, and ethics; Interpersonal and Intergroup Conflict - An in depth study of the dynamics of interpersonal and intergroup conflict. · Organizational and Community Conflict - An exploration of the dynamics of conflict in organizations and the community;

International and Cross-Cultural Conflict - an examination of the practical negotiation skills central to the resolution of situation-specific international and intercultural conflict.

Methodology of Conflict Resolution Research - an introduction to a range of qualitative data collection methods with particular focus on techniques used in research on conflict and conflict resolution, including participant observation, content analysis, behavioral mapping, and non-intrusive measures, as well as a review of relevant research literature in the field.

### **BUS 912 Management of Change**

**Elective**

**3Credits**

Management of change is designed to acquaint participants with the issues, techniques, and strategies for the management of change. The first part of the course concentrates on

developing expertise in predicting relevant changes in the organization's task environment and making sure that change initiatives are in harmony with environment. Techniques for environmental scanning and task forecasting will be explored and useful models analyzed. Students will also discuss and make presentations on current issues such as employee ownership, team-based management, mergers and acquisitions, and organizational renewal, etc. By course end, participants will understand the techniques for creating a change, managing resistance, and applying change models to various industries and situations.

#### **BUS 902 Seminar**

**3Credits**

This seminar introduces students to the most recent research in the area of Management and organizational analysis, examining current issues and trends. Students have an opportunity to present and discuss their own research and actively engage in the analysis and discussion of the work of others. Each student is expected to make at least one presentation during the course, focusing on the formulation, design, execution, and results of his or her research.

#### **BUS 904 Imperatives of Globalization**

**3Credits**

Globalization Overview: Why has the global economy grown so rapidly? How is it affecting the environment, local economics, and social and cultural customs throughout the world? ; Questioning Free Trade: What are the positive and negative impacts of free trade? ; Economic globalization and technological changes: these processes are examined in relation to the national development or under-development. It also examines multinational companies, their histories, the reasons for these companies' spacial mobility and the impact on developing world; Globalization and the Environment; Social Equity: Is social equity relevant to trade issues?; What is gained and lost through the gradual homogenization and distortion of cultures as a result of globalization?

#### **BUS 906Advanced Qualitative Analysis**

**3Credits**

It is designed to provide students the opportunity to explore more advanced quantitative techniques for decision-making in general and research in particular. Emphasis will be on multivariate statistical methods, advanced topics in optimization techniques and stochastic models.

#### **BUS 998 Thesis**

A research based study and report on an acceptable management problem in the candidate's area of interest approved by the supervisor and the Head of Department

**MPhil/ PhD candidates must have offered and passed 18 units of MPhil before proceeding to take the PhD course**

**Expected duration of M.Phil/PhD programme:**

- (a) Full Time: A minimum of 8 semesters and a maximum of twelve (12) Semesters
- (b) For extension beyond the specified maximum period, a special permission of the Postgraduate Board shall be required.

MPhil/ PhD Programme requires minimum of 54 units

Teaching Facilities

Adequate teaching facilities

COURSE DELIVERY

Effective course delivery

Class sessions will consists of lecturers, class discussions, Case studies, research

**Language of Instruction**

The language of instructions is English language.

**LIST OF M. Phil COURSES**

**Year One First Semester**

S/N	COURSE CODES	COURSE TITLE	STATUS	UNITS
1.	BUS 835	Seminar in Business Environment	C	3
2.	BUS 837	Government Business and Society	C	3
3.	BUS 841	Multinational Enterprises	C	3
		<b>TOTAL</b>		<b>9</b>

**Year One Second Semester**

S/N	COURSE CODES	COURSE TITLE	STATUS	UNITS
1.	BUS 843	Seminars	C	3
2.	BUS 845	Imperatives of Globalization	C	3
3.	BUS 821	Business Policy	C	3

<b>4</b>		Thesis	<b>C</b>	<b>12</b>
		<b>TOTAL</b>		<b>21</b>

## **COURSE DESCRIPTION**

### **BUS 845 International Business Management**

3 Units

The course focuses on the international dimension of business, including trade, financial and foreign investment patterns, and problems and policies at the corporate and national levels. It covers theoretical, institutional and case analyses of major issues, including the impact of international codes and organizations on corporate policies in home and host countries, the effect of changing governmental policies on strategies for managing international operations. Using a wide range of data sources, cases, and other empirical studies, each student will prepare an individual study of a specific company and country.

### **BUS 835 Seminar in Business Environment**

**3 Credits**

Students will need to submit their various topics for presentation in the area of interest

### **BUS837 Government Business and Society**

**3Credits**

The course will examine the area of government business and business-society relations as one of the critical areas where the general manager spends a considerable amount of time. The responsibilities of the firm in these areas, the role of general manager, the skills needed and ethical and philosophical issues will be discussed.

### **BUS839 Seminar in Public Enterprises Management**

**3 Credits**

Students will need to submit their various topics for presentation in the area of interest

### **BUS 841 Advanced Marketing Theory**

**3Credits**

The objective of this course is to provide students with knowledge of advanced marketing theory and research. Marketing is an applied discipline that is informed by professional scholarly research in marketing and related fields (e.g. psychology, economics). This course provides an in depth review of marketing theory and research, an advanced review of influential theories in the development of marketing thought, and an overview of contemporary theories and research in marketing. Reading materials shall largely be scholarly articles in refereed journals.

**BUS 843 Multinational Enterprises****3Credits**

This course covers World Trade Organization (WTO) and multilateral trade agreements. The course will present an overview of the WTO and then focus on multilateral trade negotiations. Multilateral trade agreements shall be studied in four parts: trade in goods, trade in services, trade-related aspects of intellectual property rights and institutional issues. Agreements on trade in goods are further divided into three subcategories: market access, customs-related issues and trade rules. Lastly, this course will look at the future challenges facing the current multilateral trading system. Although this course deals with trade agreements, it will put more emphasis on economic interpretation rather than the legal aspects. For this course, outside scholars and experts from policy, academic, and private sectors may be invited as special guest lecturers.

**Ph. D. PROGRAMME****YEAR ONE FIRST SEMESTER**

S/N	COURSE CODES	COURSE TITLE	STATUS	UNITS
1.	BUS 901	Management Thoughts and Philosophy	C	3
2.	BUS 903	Seminar in Strategic Management and Entrepreneurship	C	3
3.	BUS 905	Advanced Research Methodology	C	3
4	BUS912,	Management of Change	C	3
		<b>TOTAL</b>		<b>12</b>

**YEAR ONE SECOND SEMESTER**

S/N	COURSE CODES	COURSE TITLE	STATUS	UNITS0
1.	BUS 922	Advanced Conflict Management	C	3
2.	BUS 904	Imperatives of Globalization	C	3
3.	ACC 906	Advanced Quantitative Techniques	C	3
		<b>TOTAL</b>		<b>9</b>

**YEAR TWO FIRST SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>BUS 902</b>	Seminars	<b>C</b>	<b>3</b>
		<b>TOTAL</b>		<b>3</b>

**YEAR TWO SECOND SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>BUS998</b>	Thesis	<b>C</b>	<b>12</b>
		<b>TOTAL</b>		<b>12</b>

**YEAR THREE FIRST SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>BUS998</b>	Thesis	<b>C</b>	<b>12</b>
		<b>TOTAL</b>		<b>12</b>

**YEAR THREE SECOND SEMESTER**

<b>S/N</b>	<b>COURSE CODES</b>	<b>COURSE TITLE</b>	<b>STATUS</b>	<b>UNITS</b>
<b>1.</b>	<b>BUS 998</b>	Thesis	<b>C</b>	<b>12</b>
		<b>TOTAL</b>		<b>12</b>

**COURSE DESCRIPTION****BUS 901 Management thought and Philosophy****3Credits**

This course examines the idea and evolution of management as a field of endeavor.

### **BUS 903 Seminar in Strategic Management and Entrepreneurship**

Students will gain a well-developed understanding of business enterprises and the entrepreneurial and strategic thinking that drives them in a dynamic, competitive regional, national, and global economy. Students will learn to apply entrepreneurial and strategic management practices (e.g., using case analysis) to organizations of varying sizes. An integral component, futures studies, shall involve an introduction into thinking about the future, the foundation of the field, its methodologies, link to planning, decision-making, strategy and public policy. The relationship between core competences (at the company level) and key success factors at the industry shall be examined.

### **BUS 905 Advanced Research Methodology**

**3 Credits**

The objective of this course is to deepen the understanding of the students, of the traditional scientific research methods. Topics to be discussed include Research in Social, Physical and natural sciences; problems of research in developing countries; common errors in research; types of research; and research in practice: selecting a topic, problem and hypotheses formulation, research design, instruments and data collection data analysis and interpretation, research report, etc

The objective is for students to gain confidence in the applicability and relevance of non-quantitative methods in our research environment, where the tradition of believing in "objective measurement" is strong. Qualitative research methods open up for us a class of research questions that is not accessible within the "normal" scientific method. That is, as researchers, we can ask new questions if we have a richer repertoire of tools, both the qualitative and the quantitative from which to choose.

Topics to be discussed include the basics of qualitative research methods and research approaches. Some qualitative research approaches, such as phenomenography, activity theory and ethnography, data collection methods such as interviews, field studies and rapid rural appraisal, and observations. Evaluating collected data.

### **BUS922 Advanced Conflict Management**

**3 Credits**

This course is designed to provide an understanding of intercultural management useful for international management and trade negotiations. Participants are expected to study the different ways various cultures think, communicate and behave, particularly within business contexts, in order to develop a necessary level of cross-cultural competency. Today's global business implies co-operating, coordinating, negotiating and supervising, using management

processes appropriate to the cultural context. The student will explore cultural implications in those management processes, as well as its impact on team-building, ethics, conflict resolution and creative problem-solving. Students will also study their own culturally-based perceptions, patterns of thinking and behavior, communication styles, values and how they can be adapted to an intercultural context. Although the course will primarily deal with cultural differences in national culture context, it will also address cultural differences in gender and in organizational level as long as they affect the global business environment.

Foundations and Theories of Conflict: Theories of Conflict Resolution - An interdisciplinary approach to examination of conflict and conflict resolution theory;

Responses to Conflict - An examination of the different approaches to conflict resolution represented by two party negotiation, facilitative processes such as mediation, the various evaluative processes, adjudicative processes such as litigation and binding arbitration, and the various hybrid processes; Negotiation; Mediation Skills Clinic - A basic introduction to mediation skills, theory, and ethics; Interpersonal and Intergroup Conflict - An in depth study of the dynamics of interpersonal and intergroup conflict. · Organizational and Community Conflict - An exploration of the dynamics of conflict in organizations and the community;

International and Cross-Cultural Conflict - an examination of the practical negotiation skills central to the resolution of situation-specific international and intercultural conflict.

Methodology of Conflict Resolution Research - an introduction to a range of qualitative data collection methods with particular focus on techniques used in research on conflict and conflict resolution, including participant observation, content analysis, behavioral mapping, and non-intrusive measures, as well as a review of relevant research literature in the field.

<b>BUS912 Management of Change</b>	<b>Elective</b>	<b>3Credits</b>
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Management of change is designed to acquaint participants with the issues, techniques, and strategies for the management of change. The first part of the course concentrates on developing expertise in predicting relevant changes in the organization's task environment and making sure that change initiatives are in harmony with environment. Techniques for environmental scanning and task forecasting will be explored and useful models analyzed. Students will also discuss and make presentations on current issues such as employee ownership, team-based management, mergers and acquisitions, and organizational renewal, etc. By course end, participants will understand the techniques for creating a change, managing resistance, and applying change models to various industries and situations.

**BUS 902 Seminar****3 Credits**

This seminar introduces students to the most recent research in the area of Management and organizational analysis, examining current issues and trends. Students have an opportunity to present and discuss their own research and actively engage in the analysis and discussion of the work of others. Each student is expected to make at least one presentation during the course, focusing on the formulation, design, execution, and results of his or her research.

**BUS 904 Imperatives of Globalization****3Credits**

Globalization Overview: Why has the global economy grown so rapidly? How is it affecting the environment, local economics, and social and cultural customs throughout the world? ; Questioning Free Trade: What are the positive and negative impacts of free trade? ; Economic globalization and technological changes: these processes are examined in relation to the national development or under-development. It also examines multinational companies, their histories, the reasons for these companies' spacial mobility and the impact on developing world; Globalization and the Environment; Social Equity: Is social equity relevant to trade issues?; What is gained and lost through the gradual homogenization and distortion of cultures as a result of globalization?

**BUS 906 Advanced Qualitative Analysis****3 Credits**

It is designed to provide students the opportunity to explore more advanced quantitative techniques for decision-making in general and research in particular. Emphasis will be on multivariate statistical methods, advanced topics in optimization techniques and stochastic models.

**BUS 998 Thesis**

A research based study and report on an acceptable management problem in the candidate's area of interest approved by the supervisor and the Head of Department

Regulations

**DURATION OF THE PROGRAMME**

**MPhil/ PhD candidates must have offered and passed 18 units of MPhil before proceeding to take the PhD course**

**Expected duration of M.Phil/PhD programme:**

- (a) Full Time: A minimum of 8 semesters and a maximum of twelve (12) Semesters
- (b) For extension beyond the specified maximum period, a special permission of the Postgraduate Board shall be required.

MPhil/ PhD Programme requires minimum of 54units made up as follows:

**14 Units (3 credits each) - covering 6 courses of MPhil and 8 courses of PhD - total 42 units**

### **Expected Duration of Ph.D.Management Programme**

- (a) Full-time: A Minimum of six (6) semesters, a maximum of ten (10) semesters.
- (b) For extension beyond the specified maximum period, a special permission of the Postgraduate Board shall be required.

### **TEACHING FACULTY**

**N.A**

### **COURSE DELIVERY**

Class session will consist of lectures, class discussions, case analysis etc

### **LANGUAGE OF PROFICIENCY**

The mode of communication shall be English Language

### **ATTENDANCE POLICY**

- i. A student is expected to attend not less than 70% of the schedule classes before he can qualify to sit for the end of semester examinations
- ii. No student shall sit for an examination in a course not registered for.

## **FIRST SEMESTER**

### **57.0 GST711/811/911 RESEARCH PROPOSAL AND WRITING 2 Credits**

This course is designed to strengthen the research techniques and skills of the Post graduate students in title selection process through literature and contextual based ideation concept as well as acquisition of the necessary skills needed for the writing of proposal from chapters 1-3 as well as the development of skills for writing research grants and fellowships. Ethical knowledge needed for research process will be taught. The principles of integrity and originality of research are extolled by the course.

### **GST 712/812/ 912 ADVANCED RESEARCH DESIGN 2 Credits**

This builds on the proposal writing knowledge of students to specifically impact students' ability to plan and construct method of data collection and analysis as well as take cognizance of ethical and cultural sensitivity of the research process. The course focuses on: definition of a researchable problem; techniques of conducting and writing a literature review, formulating a study design, sampling plan and methods of data collection; understanding measurement concepts, instrument construction and scaling methods. The role of statistics, cautions in using statistics, steps involved in statistical analysis, analyzing the data-descriptive statistics, inferential statistics, testing the hypothesis, Computer-Aided Statistical Analysis. Emphasis is placed on the role of research practice in contributing to the knowledge base in ways that will advance social and economic justice. The importance of ethical issues and cultural sensitivity at each phase of the research endeavor is stressed. The principles of integrity and originality of research are extolled by the course.

### **57.1 GST 721/821/921 DISCIPLESHIP AND LEADERSHIP 2 Credits**

This course is designed to introduce students to basics of following Jesus at all spheres of life. It lays the foundation for leadership both in life and work arena. The course include details like - God's great offer; Definition, concept and basis of discipleship; Understanding the conditions for discipleship; Denial of Self Life; Victory over Self Life; Allowing Christ in our lives, Marriages and Workplaces; Taking up your cross daily in life, Marriage, Workplaces; Following in his steps in Life, Marriage, Parenting and Workplaces. Concept of Leadership, Christ in Leadership, Leaders of Conviction, Roles of Christ Values in Corporate Life, Core Qualities of Principled Leaders.

## **SECOND SEMESTER**

### **57.2 GST 710/810/910 ADVANCED STATISTICS**

**2 Credits**

This course teaches students how to apply statistical tools to both primary and secondary data. The course deals with the following: curve fitting, regression and correlation, (method of fitting regression curve on line, besteye fit, least square method, multiple regression, leaner correlation, interpretation of regression, line of curve, sapling theory of regression, sapling theory of correlation); test of hypothesis, F-test, t-test, X2 test, analysis of variance- one - factor experiment, two-factor experiment); Random numbers, (distribution, probability distribution, binomial distribution, normal distribution, bivariate normal distribution, Beta distribution); Non parametric tests (sign test, Mann-Whitney U test, Kruskal Wallis H test, H test corrected for ties); use of SPSS. Structural Equation Modeling (SEM) Analysis. The course promotes the value of excellence and integrity in the workplace.