FEDERAL UNIVERSITY OF AGRICULTURE, ABEOKUTA

COLLEGE OF PHYSICAL SCIENCES

DEPARTMENT OF COMPUTER SCIENCE

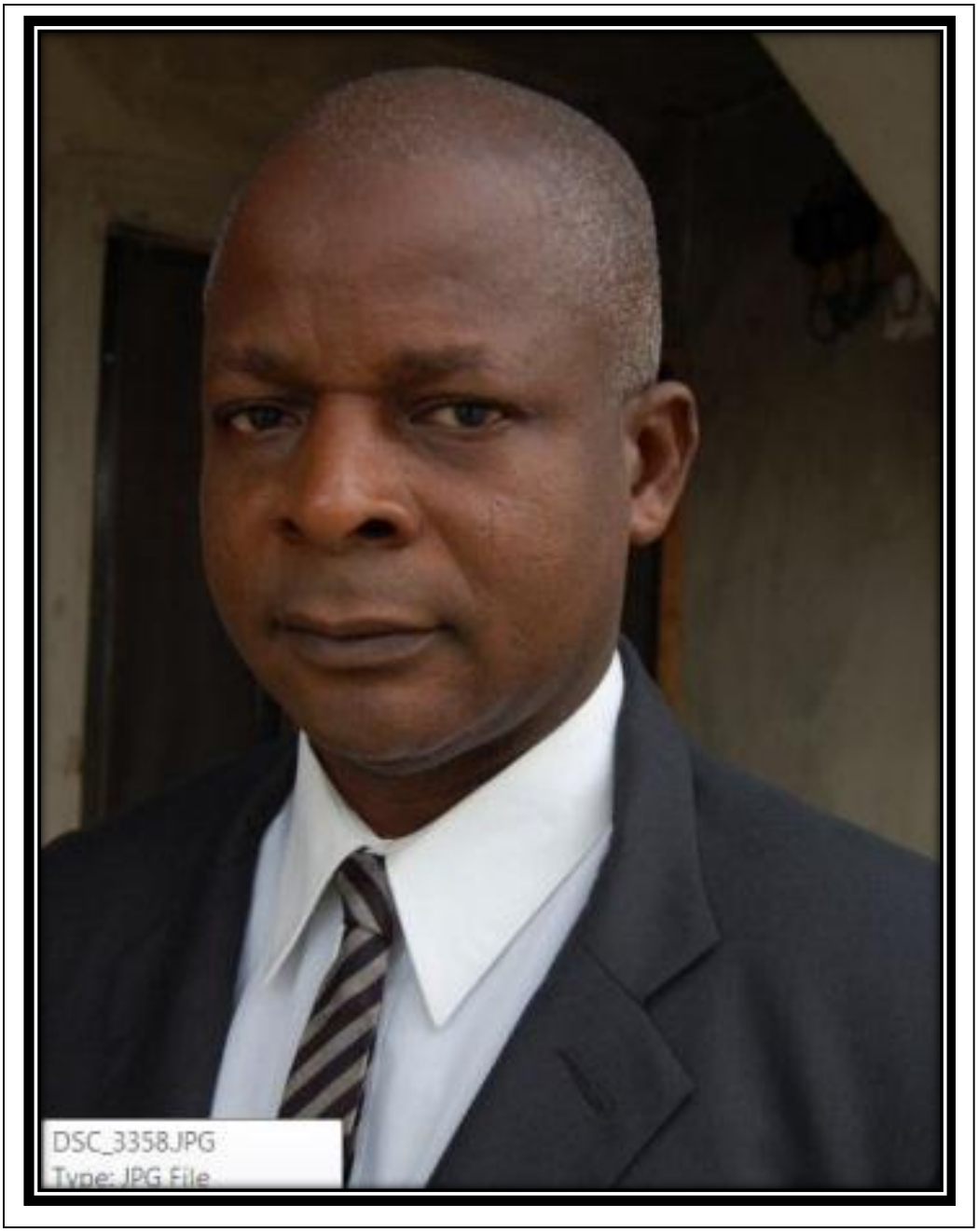
STUDENTS' INFORMATION HANDBOOK

2017 - 2021

PROFESSOR FELIX SALAKO

VICE- CHANCELLOR

Federal University of Agriculture, Abeokuta (FUNAAB)



PROFESSOR A. T. AKINWALE

DEAN

College of Physical Sciences

Dr. (Mrs.) S. A. Onashoga
Ag. HOD, Computer Science

CONTENT

1. HISTORY

The Department of Computer Science was an arm of the then Mathematical Sciences Department established in 1988 at the inception of University of Agriculture, Abeokuta. During the 2005/2006 Session, the Department of Computer Science evolved to become a unique academic division in the production of highly trained graduates and postgraduates in the field of Computer Science.

At present, the Department of Computer Science is the largest in term of student population. The Department offers programmes leading to the award of Bachelors of Computer Science, Master of Science and Doctor of Philosophy degrees in Computer Science. In addition, the Department also runs programmes leading to the award of Postgraduate Diplomas in Computer Science and Master of Information Communication and Technology.

Staff members of the Department are in the forefront in the recent areas of computer research work. This has enabled her to produce quality graduates who are now occupying various positions in banks, industries, academia and private phone companies.

2. PHILOSOPHY AND OBJECTIVES

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 write programs for solving different problems. Such training will lead to the production of skilled manpower that is adequately furnished with the current and comprehensive knowledge of computer science as well as Information and Communication Technology.

The objectives of the B.Sc. Degree in Computer Science programme are to:

i. stimulate sustained interest and enthusiasm in computer science and its applications in the students;
ii. train students the necessary computing knowledge and skills required to provide effective and timeless computing service to industries, banking and other sectors;
iii. produce professionally trained and skilled manpower that would be able to developed internationally acceptable software applications that meet international standard specifications;
iv. provide students basic network and hardware knowledge needed for modern day practice in information and communication technology;
v. train students with a solid foundation in computer science and knowledge that are required for postgraduate studies and research;
vi. inculcate in the students, the culture of focused and continuous skills required for carrying research work in any field of computer science;

3. VISION

The vision of the Department is:

- *To be the leading Department in Research and Teaching towards the Economic Growth of the Nation through ICT.*

4. ADMISSION REQUIREMENTS

For entry into Bachelor of Science (B.Sc.) degree programme in Computer Science, candidates must satisfy the University's minimum admission requirements spelt out in the University of Agriculture Abeokuta Handbook. The specific requirements include:

Course	Direct Entry Requirements	UTME Requirements	UTME Subjects	Waivers and Special Considerations/Other Qualifications
Computer Science	NCE in Computer Science with any of Mathematics, Chemistry, Physics, Integrated Science, Economics or Two 'A' Level Passes in Physics and Mathematics or Chemistry.	Five 'O' Level SSCE/WASC Credit Passes in English Language, Mathematics, Physics Chemistry plus any other science subjects.	Mathematics, Physics and one of Chemistry, Biology.	Holders of OND/NCE (minimum upper credit) in relevant subjects may be considered for Direct Entry to 200 Level provided they satisfy the UTME requirements.

5. COURSE CATEGORIES AND CREDIT SYSTEM

The University of Agriculture, Abeokuta operates a course s ystem. This is a system in which subjects are broken down into one or more convenient sections called Courses, which are taught and examined within a semester. A course is assigned a specific number of lecture and/or practical hours and the total number of hours assigned to it will determine its unit value. The University also operates the semester-system under which a full academic session is divided into two semesters. A full semester consists of 15 weeks of lectures plus practical, after which examination are taken.

a. A course may be evaluated in terms of lecture hours alone without tutorial or practical hours but may also be a combination of lecture, tutorial and practical hours.
b. For all undergraduate programmes, the following are the general categories of courses:
    i. Core/Compulsory: Courses so categorized must be taken and passed before any student can graduate in any degree programme. For the entire University, they are termed core courses. They are designated for each degree programme and not subject to any choice by students.
    ii. Elective:Course designated as elective are left for students to choose to make up their work load or degree programmes. They may be from their field of study or outside them, but should be relevant to their programmes prescribed minimum number of units from such courses must also be Passed before the student can graduate.
    iii. Pre- Requisite: A pre-requisite course is one which must be taken and Passed before any student is allowed to register for another course, usually a more advanced one to which that course is a prerequisite. Usually, pre-requisite courses are so designated, but in general courses at lower levels are considered as pre-requisite. Students are not

normally allowed to register for higher level courses than their years of registration allow except when their academic programmes allow for such in the layout.

iv. Concurrent: A "concurrent requirement" course is one which must be taken along with the course to which it is a concurrent requirement within the same semester. It must also be passed like all other courses.

c. A course must be completed and examined within a semester and students shall be credited with the appropriate number of course units assigned to each course passed.
d. The pass mark for all courses examined shall be 40 percent.
e. Workload: The minimum number of course units for which a student can register in any semester shall be 16 units while the maximum shall be 24. Any student wishing to register for less than the minimum or more than the maximum shall seek permission of Senate through his/her College Board.
f. Probation and withdrawals: Any students who scores a Grade Point Average (GPA) of less than1.50, at the end of one semester shall be placed on probation during the next semester.
g. Any student who has a CGPA of less than 1.50, at the end of an academic session shall be on probation.
h. Any student that scores a CGPA of less than 1.50, in two consecutive semester within an academic session shall be required to withdraw from the programme.
   i. A student who has a GPA of less than 1.50, in two consecutive semesters within an academic session shall be required to withdraw from the programme.
   ii. A students who has a GPA of less than 1.50, in two consecutive semesters within a session and a CGPA of less than 1.00 (one), at the end of the session shall be required to withdraw from the University.

6. CLASSIFICATION OF DEGREES AND COURSE GRADES

All letter grades are assigned specific grade points ranging from 5 (for A) to 0 (for F), and these grades points are used in the computation of GPA and CGPA which form the basis for degree classification at the end of each academic progamme as shown in the table below.

All prescribed courses are considered in the computation of the final CGPA for the degree classification at the University of Agriculture, Abeokuta, (UNAAB).

TABLE SHOWING SCORING AND GRADING SYSTEMS

Exam Score Percent	**Letter Grade**	**Grade Point**	**GCPA**	**Class of Degree**
70 – 100	A	5	4.50 – 5.00	1st Class
60 – 69	B	4	3.50 – 4.49	2nd Class (Upper)
50 – 59	C	3	2.40 – 3.49	2nd Class (Lower)
45 - 49	D	2	1.50 – 2.39	3rd Class
40 - 44	E	1	1.00 – 1.49	Pass
0 - 39	F	0	0.00 – 0.99	Fail

7. STAFF LIST

Onashoga, S. A.	NCE, B.Sc., M.Sc., Ph. D (Abeokuta)	Information Security, Data Mining and Algorithmic Engineering	HOD/Reader
Akinwale, A. T.	B.Sc., M.Sc., Ph.D (Poland)	Artificial Intelligence, Database Systems and Discrete Computing	Professor
Folorunso, O.	B.Sc. (Abeokuta), M.Sc. (Lagos), Ph.D (Abeokuta)	Intelligent Information Systems and Software Engineering	Professor
Sodiya, A. S.	B.Sc. (Ago-Iwoye), M.Sc. (Lagos), Ph.D (Abeokuta)	Computer Network Security and Software Engineering	Professor
Ojesanmi, O. A.	OND (Ibadan), B.Sc. (Ibadan), M.Sc., Ph.D (Ife)	Networking/Mobile Computing	Reader
Arogundade, O. T.	B.Sc. (Ondo), M.Sc. (Abeokuta), Ph.D. (China)	Software Engineering, Security Modeling and Human Computer Interaction	Reader
Vincent, O. R.	NCE, B.Sc., M.Sc., Ph. D (Abeokuta)	Business Intelligence Systems, Image Processing, and Information Engineering	Senior Lecturer
Ibharalu, F. T.	B.Sc. (Benin), M.Sc. (Lagos), Ph.D. (Abeokuta)	Mobile Agent Technology and Software Engineering	Senior Lecturer
Abayomi-Alli, A.	B.Tech (Ogbomoso), M.Sc. (Ibadan) Ph.D. (Ogbomoso)	Pattern Recognition Machine Learning and Statistical Computing	Senior Lecturer
Aborisade, D. O.	B.Sc. (Abeokuta), M.Sc. (Ibadan) Ph.D. (Abeokuta)	Cloud and Cloud Database Security. Digital Forensics	Lecturer I
Ojo, O. E.	B.Sc (Ago-Iwoye) M.Sc. & PhD (OAU)	Multimedia Networking Modeling and Simulation	Lecturer I
Salako, O. S.	B.Sc (Abeokuta) M.Sc (UK)	Creative Software Systems Virtual system	Lecturer II
Tinubu, C. O.	B.Sc. (Abeokuta) M.Sc. (Lagos)	Database Management System and Security	Lecturer II
Adejimi, A. O.	NCE, B.Sc., M.Sc (Abeokuta)	Computer Security	Assistant Lecturer

Administrative and Technical Staff

Name	Qualification	Designation
Olubiyi, A. C.	HND, PGD, MICT (Abeokuta)	Principal Technologist
Fasunwon, O. W.	B.Sc., PGD, MICT (Abeokuta)	Chief System Analyst
Amusa, O. L.	HND (Offa), PGD, M.Sc. (Abeokuta)	Principal Data Analyst
Onaolapo Sodiq	B.Sc. (Abeokuta)	Senior Data Entry Operator II
Ake, O. B.	Diploma in Secretarial Studies	Senior Secretarial Assistant I
Erinoso, O. P.	SSCE	Senior Clerical Officer

8. COURSE STRUCTURE (NEW CURRICULUM)

Tabulated below are the courses offered by each level of the department

100 LEVEL
FIRST SEMESTER CURRICULUM

Course Code	Course Title	U	L	T	P
CSC 101	Introduction to Computer Science	2	1	-	1
MTS 101	Algebra	3	2	1	-
MTS 103	Vectors and Geometry	2	2	-	-
BIO 101	General Biology I	2	2	-	-
BIO 191	Biology Practical	1	-	-	1
CHM 101	Introductory Physical Chemistry	3	2	1	-
CHM 191	Practical Chemistry I	1	-	-	1
PHS 101	General Physics I	3	2	1	-
PHS 191	Physics Laboratory I	1	-	-	1
STS 181	Probability I	3	2	1	-
GNS 111	Introduction to Social Problems	1	1	-	-
	Total	**22**	**15**	**4**	**4**

100 LEVEL
SECOND SEMESTER CURRICULUM

Course Code	Course Title	U	L	T	P
CSC 102	Introduction to Algorithm Techniques	2	2	-	-
MTS 102	Calculus and Trigonometry	3	2	1	-
MTS 104	Introductory Mechanics	3	2	1	-
BIO 102	General Biology II	2	2	-	-
BIO 192	Practical Biology II	1	-	-	1
CHM 102	Introductory Organic Chemistry	2	2	-	-
CHM 192	Practical Chemistry I	1	-	-	1
PHS 102	General Physics II	3	2	1	-
PHS 192	Physics Laboratory II	1	-	-	1
AEM 102	Principles of Economics	2	2	-	-
GNS 101	Use of English	2	2	-	-
GNS 102	Introduction to Nigerian History	1	1	-	-
	Total	**23**	**17**	**3**	**3**

200 LEVEL

FIRST SEMESTER CURRICULUM

Course Code	Course Title	U	L	T	P
CSC 203	Computer Programming I	3	1	-	2
CSC 205	Discrete Computation	3	2	1	-
CSC 217	Data Structures and Algorithms	3	2	-	1
CSC 209	Computer Hardware and Digital Logic	3	2	-	1
CSC 271	Numerical Computation	3	2	1	-
CSC 215	Information Technology Law &Ethics	1	1	-	-
MTS 213	Linear Algebra I	2	2	-	-
MTS 241	Mathematical Methods I	3	2	1	-
	Total	**21**	**15**	**3**	**3**
*CSC 201	Introduction to Computer Science	3	2	-	1
	(for Sciences, Engineering and Non-Agricultural Major)				
*CSC 221	Computer Science for Agricultural				
	Students (for B.Agric Students)	2	2	-	1

**Courses for Non-major Students*

200 LEVEL

SECOND SEMESTER CURRICULUM

Course Code	Course Title	U	L	T	P
CSC 204	Computer Programming II	3	2	-	1
CSC 206	Theory of Computation	2	2	-	-
CSC 214	System Analysis and Design	3	2	-	1
CSC 218	Foundations of Sequential Programming	3	2	-	1
MTS 216	Linear Algebra II	2	2	-	-
PHS 242	Electronics I	3	2	1	-
ETS 206	Entrepreneurial Studies & Change Mgt	2	2	-	-
GNS 201	Writing and Literary Appreciation	1	1	-	-
GNS 203	Use of Library	1	1	-	-
GNS 202	Elements of Politics & Government	1	1	-	-
GNS 204	Logic & History of Science	2	2	-	-
	Total	**23**	**19**	**1**	**3**

*Mgt - Management

300 LEVEL

FIRST SEMESTER CURRICULUM

Course Code	Course Title	U	L	T	P
CSC 301	Structured Programming	3	1	-	2
CSC 305	Algorithms and Complexity Analysis	3	2	1	-
CSC 307	Compiling Techniques	3	2	1	-
CSC 311	Software Engineering	4	3	-	1
CSC 319	Operating System	3	2	-	1
CSC 337	Computer Architecture & Organization	4	3	-	1
	Elective	3	3	-	-
	Total	**23**	**17**	**2**	**4**

ELECTIVES

CSC 309	**Information Technology Management**	**3**	**3**	**-**	**-**
CSC 335	**Operation Research**	**3**	**2**	**1**	**-**
CSC 339	**Web Programming**	**3**	**1**	**-**	**2**

300 LEVEL

SECOND SEMESTER CURRICULUM

Course Code	Course Title	U	L	T	P
CSC 392	Industrial Training/Field Work	4	-	-	4
CSC 394	Inspection/Visitation	4	-	-	4
CSC 396	SIWES Report	4	-	-	4
CSC 398	Seminar	4	-	-	4
	Total	**16**	**-**	**-**	**16**

400 LEVEL
FIRST SEMESTER CURRICULUM

Course Code	Course Title	U	L	T	P
CSC 403	Object-Oriented Programming	3	1	-	2
CSC 405	Formal Methods & Software Development	3	2	-	1
CSC 407	Database System	3	1	-	2
CSC 443	Artificial Intelligence	3	2	-	1
CSC 447	Organization of Programming Language	3	2	-	1
CSC 491	Seminar I	1	1	-	-
	Electives	4	4	-	-
	Total	**20**	**15**	**-**	**5**

Electives

Course Code	Course Title	U	L	T	P
CSC 431	**Logic Programming**	**2**	**1**	**-**	**1**
CSC 435	**Special Topics in Computer Science**	**2**	**-**	**-**	**2**
CSC 437	Information and Communication Theory	2	2	-	-
CSC 439	**Computer System Performance Evaluation**	**3**	**2**	**-**	**1**
CSC 433	Computer Graphics	3	2	-	1
CSC 441	Queuing System	3	2	-	1
CSC 445	Special Topics in Software Engineering	3	2	-	1

400 LEVEL

SECOND SEMESTER CURRICULUM

Course Code	Course Title	U	L	T	P
CSC 440	Human-Computer Interaction	2	2	-	-
CSC 442	Network Programming	3	2	-	1
CSC 444	Net-Centric Computing	3	2	-	1
CSC 446	Computer Networks & Data Communication	3	2	1	-
CSC 448	Entrepreneur for Computer Science	2	1	-	1
CSC 492	Seminar II	1	1	-	-
CSC 499	Project	4	-	-	4
	Electives	4	-	-	-
	Total	**22**	**10**	**1**	**7**

Electives

Course code	Course Title	U	L	T	P
CSC 412	**Modeling and Simulation**	**3**	**2**	**-**	**1**
CSC 416	**Computer Security & Cryptography**	**2**	**2**	**-**	**-**
CSC 418	Distributed Computing Systems	3	2	-	1
CSC 420	**Statistical Computing & Data Mining**	**2**	**1**	**-**	**1**
CSC 438	Project management	3	2	1	-
ELE 503	Digital Signal Processing	3	2	1	-

COURSES DESCRIPTION

CSC 101: INTRODUCTION TO COMPUTER SCIENCE (2 Units)

History of computer science and their generations. Origin of computing machines. Computer Hardware: functional components, modern input/output units. Software: System Software, Operating Systems and Utilities, Application Software. Data Storage and Internal representation of data, bits and character representation, concept of data, data compression, record file, basic models of files processing and their advantages.

CSC 102: INTRODUCTION TO ALGORITHM TECHNIQUES (2 Units)

Problem Solving Strategies, concept and role of algorithm in problem solving process, implementation strategies, concepts and properties of algorithm. The science of algorithm and concept of abstraction. Algorithm representation and discovery, iterative and recursive structures. Algorithmic Tools: Pseudo ode, Flowcharts. Efficiency and Correctness. Students should be introduced to a programming language e.g. Pascal, Delphi etc.

CSC 201: INTRODUCTION TO COMPUTER SCIENCE (3 Units)

(For Sciences, Engineering and Non-Agricultural Major)

Definition of computers and computing system, historical background, generations and characteristics of Computer. Basic functional components of computing system, classification of Computers hardware and software, computer hardware: functional components, modern input/output units. Software: system software, operating systems and utilities, application software: areas of application of computers. Data storage and internal representation of data, bits and character representation concept of data, data compression, records file, basic models of files processing and their advantages. Problem solving Strategies, concept and role of algorithm in problem solving process, implementation strategies, concepts and properties of algorithm, the science of algorithm and concept of abstraction, Algorithm representation and discovery, iterative and recursive structures. Algorithmic tools, pseudocode, flowcharts, introduction to efficiency and correctness of algorithms, introduction to computer programming with emphasis on C or C++. Practical: students are to have hands on practical experience in the Computer Laboratory and are expected to gain a high level of proficiency in problem solving with computers and computer programming.

CSC 221: COMPUTER SCIENCE FOR AGRICULTURAL STUDENTS (2 Units)

(For B.Agric Students with one Year Farm Practical)

Computer Hardware: History, classifications, configurations, input devices and output devices. Computer Software: operating systems (DOS, MS windows, Linux etc). Software package (Word Processing, spreadsheet, database, graphics and statistical packages). Problem Solving Strategies, concept, properties and role of algorithm in problem solving process, Algorithmic tools: Pseudocode, flowcharts, introduction to programming. Introduction systems, decision support systems, geographic information systems, precision farming and mapping, agricultural information dissemination tool.

Practical: Students are to have hands on practical experience in the Computer Laboratory and are expected to gain a high level of proficiency in computer usage.

CSC 203: COMPUTER PROGRAMMING I (3 Units)
Introduction to Problem solving methods and algorithm development, designing, coding, debugging and documenting programmes using techniques of a good programming language style, programming language and programming algorithm development. Principles of Good Programming. Programming Language Elements. A widely used programming language should be used in teaching the above. E.g. C

CSC 205: DISCRETE COMPUTATION (3 Units)
Basic Set Theory: Basic definition, Relations, Equivalence Relations Partition, Ordered Sets. Boolean Algebra & Lattices, Logic, Graph theory: directed and undirected graphs, Graph Isomorphism, Basic graph Theorems, Matrices; Integer and Real matrices, Boolean Matrices, Matrices med m, Path matrices. Adjacency Vector/Matrices. Path adjacency matrix, Numerical & Boolean Adjacency matrices. Applications to counting, Discrete Probability Generating function:
Pre-requisite: MTS 101

CSC 217: DATA STRUCTURES AND ALGORITHMS (3 Units)
Primitive types, Arrays, Records Strings and string processing, Data representation in memory, Stack and Heap allocation, Queues, TREES. Implementation Strategies for stack, Queues, trees. Run time storage management, pointers, reference and linked structures.

CSC209: COMPUTER HARDWARE AND DIGITAL LOGIC (3 Units)
Data representation, and number bases, Fixed and Floating point systems, representation. Fundamental building blocks, logic e xpression, sum of product forms. Computer circuits; diode arrays, PIAs etc, Integrated circuits fabrication process. Use of MSI, LSI and VLSI IC' hardware Design. Primary and Secondary memories; core memory, etc. Magnetic devices; disks, tapes, video disks etc. Peripheral devices; printers, CRT's, keyboards, character recognition. Operational amplifiers; Analog-to- digital and Digital-to-analog converter.

CSC 271: NUMERICAL COMPUTATION (3 Units)
Approximation, significant figures, Errors; Truncation, Round-off, Recursive Computation (e.g. Herner's method and synthetic division for polynomials), polynomials and their zeroes (for at most degree 4). Bisection rule, Newton-Raphson rule, computations of functions and series. Numerical differentiation, Solution of ordinary differential equations, Direct and iterative methods for solution of linear system, Least square polynomial approximations. Introduction of numerical solution of partial differential equations. Students will be expected to prepare flow charts, write programs in C, C++ , JAVA to compute the above.
Pre-requisite: **MTS 101 OR MTS 102**

CSC 215: INFORMATION TECHNOLOGY LAW AND ETHICS (1 Unit)
Proliferation of Computers in our World; Computers and the Business World; Medicine and Computers; Computers and Education; Computers and the e-Government; Computers and the Law; Privacy versus Freedom of Information; Ethics and Professionalism; Intellectual Property Rights.

CSC 204: COMPUTER PROGRAMMING II (3 Units)
Principle of good programming, structured programming concepts, Debugging and testing, string processing, internal searching and sorting, recursion. Use a programming language different from that in CSC 203. E.g. C++, Python… **Pre-requisite: CSC 102**

CSC 206: THEORY OF COMPUTATION (2 Units)
Formal grammars and automata; meaning of alphabet, string, concatenation, language and level of language; regular expression, regular grammar and context-free languages, deterministic and non-deterministic parsing of context free languages; recursive language, finite state automata, turing machine, pumping lemma, chomsk normal form and CYK algorithm. **Pre-requisites MTS 101**

CSC 214: SYSTEM ANALYSIS AND DESIGN (3 Units)
System concept, organization of a Data Processing department, Feasibility study: project identification and selection fact-finding and analysis; process of system design, design problem identification, definitions and solutions, physical and implementation, data capture, data recording transmission, conversion and possible effect, file design control and security, personnel training, system testing and maintenance, evaluation process, system documentation, report writing and presentation.

CSC218: FOUNDATIONS OF SEQUENTIAL PROGRAMMING (3 Units)
The relationship between H/L languages and the computer architecture that underlies their implementation: basic machine architecture, assembles specification and translation of P/L block structured languages, parameter passing mechanisms.

CSC 301: STRUCTURED PROGRAMMING (3 Units)
Structured programming elements, structured design principles, abstraction modularity, stepwise refinement, structured design techniques. Teaching of a particular structured programming languages e.g. C++, Python, PASCAL, ALGOL etc. **Pre-requisite: CSC 203 or 204.**

CSC305: ALGORITHM AND COMPLEXITY ANALYSIS (3 Units)
Basic algorithm analysis: asymptotic analysis of upper and average complexity bounds; standard complexity classes time and space tradeoffs in algorithm analysis, recursive algorithm.
Algorithm strategies: Fundamental computing algorithms: numerical algorithms, sequential and binary search algorithms; sorting algorithms, binary search trees, hash tables, graphs and its representation. **Pre-requisite: CSC 217.**

CSC 307: COMPILING TECHNIQUES (3 Units)
Review of compilers, assemblers and interpreters, structure and functional aspects of a typical compiler, syntax, semantics and pragmatics, functional relationship btw lexical analysis, expression analysis and code generation. Internal form of course programme. Use of a standard compiler, as a working example. Error detection and recovery. Grammars and languages, the parsing problem and the scanner. **Pre-requisite: CSC 206**

CSC 309: INFORMATION TECHNOLOGY MANAGEMENT (3 Units)
Concept and principles of Management, Functions of management. Information Technology Management. Challenges of Management. Technology assimilation. Information technology's strategies, IT policy and strategy, IT planning and strategic issues for senior executives. Developing the firm's IT strategy. IT controls and asset protection, Chief Information Officer duties and responsibilities. Team management, project management tools, software risk and quality assurance.

CSC 311: SOFTWARE ENGINEERING (4 Units)
Software Design: Software architecture, Design Patterns, O.O analysis and design, Design for re-use. Using APIS, API programming Class browsers and related tools, Component based computing. Software tools and Environment: requirements analysis and design modeling, Tools, Testing tools, Tools Integrating mechanisms.

CSC 319: OPERATING SYSTEM (3 Units)
Overview of O/S, Role & Purpose, Functionality Mechanism to Support client-server, models, hand-held devices, Design issues influence of security, networking, multimedia, Windows, O/S Principles, Structuring methods, Abstraction processes,, concept of APIS, device organization, interrupts. Concurrency: state and state diagram structures, dispatching and context switching; interrupt; concurrent execution'; mutual exclusion problem and some solutions deadlock; models and mechanisms (semaphores, monitors etc). Producer-consumers problems and synchronizations. Multiprocessor issues, Scheduling and dispatching. Memory management: overlays, swapping and partitions , paging and segmentation placement and replacement policies, working set and trashing, caching.

CSC 335: OPERATION RESEARCH (3 Units)
Phases of Operation Research study and modeling. linear programming, dynamic programming and integer linear programming, applications of linear and integer programming models in information systems, network models, inventory models, and queuing models, Decision theory and games, flow project controls etc.

CSC 337: COMPUTER ARCHITECTURE AND ORGANIZATION (4 Units)
Register transfer notation, memory, bus and CPU (datapath and control unit) design. Memory system, general characteristic of memory operation (technology-magnetic recording semi-conductor memory, coupled devices, magnetic bubble). Memory addressing, memory hierarchy, virtual memory and control systems. Memory systems organization and architecture, Primary and secondary memories, core memory etc. magnetic devices disks, tapes video disks etc. Hardware control, micro programmed control, asynchronous control, I/C control. Peripheral devices, printers crt's keyboards character recognition, operational amplifiers analog-to –digital and digital- to-analog converter. Introduction to the methodology of faulty tolerance computing.

CSC339: WEB PROGRAMMING (3 Units)
Students should be exposed to the knowledge of HTML, PHP, Cascade Style, Javascript, WAMP Server. Web application design and development

CSC 392: INDUSTRIAL TRAINING/FIELD WORK (4 Units)
Every student in the Department of Computer Science must undergo an Industrial Attachment in a place relevant to the student's area of interest during the second semester of third year and long vacation of the penultimate year. Assessment of Log Books on six months industrial training activities in Information Technology industries and allied establishments.

CSC 394: INSPECTION AND VISITATION (4 Units)
Assessment of students in their respective industrial training locations.

CSC 396: SIWES REPORTS (4 Units)
Report of the acquired experience will be typed, bounded, submitted and presented. Assessment of this scientific writing of industrial training report.

CSC 398: SEMINAR (4 Units)
Final seminar on topics related to industrial experiences.

CSC 403: OBJECT-ORIENTED PROGRAMMING (3 Units)
Basic OOP concepts: classes, objects, inheritance, polymorphism, data abstraction, tools for developing, compiling interpreting, and debugging, java programs, java syntax and data objects, operators. Central flow constructs, objects and classes programming, arrays, methods. Exceptions, applets and the abstract, OLE, persistence, window toolkit, laboratory exercises in an OOP language. **Pre-requisite: CSC 203 or 204**

CSC 405: FORMAL METHODS AND SOFTWARE DEVELOPMENT (3 Units)
Topics from process improvement, Software re-engineering configuration management, formal specification, formal verification and validation, Software cost-estimation, Software architecture, Software patterns, Software re-use and open-source development. **Pre-requisite: CSC 311**

CSC 407: DATABASE SYSTEMS (3 Units)
DBMS architecture and administration, centralized and client-server approaches, system catalog, and data dictionary, transaction management; concepts, characteristics, and processing, recovery techniques, concurrency control techniques: serializability, deadlock, locking schemes, time-stamp ordering, multi-version, and optimistic techniques, DB security, distributed databases, distributed DBMS, data fragmentation and replication, distributed transactions management, object-oriented databases, introducing to new emerging DB technologies and applications; Web DBs, multimedia DBs, data warehousing and data Mining.
Characteristics and advantages of the database management systems (DBMS), database concepts and architecture; data models, database schemes and instances, DBMS and the concept of program-data independence, database languages and interfaces, database models, relational data model and relational algebra, relational model constraints; domains, keys, and integrity constraints, the structured query language (SQL); data definition, queries, update, statements, and views in SQL, database design; functional dependencies, normal forms. Introduction to OO databases. Information storage and retrieval, information management applications, information capture and representation, analysis and indexing, search, retrieval, information privacy; integrity, security, scalability, efficiency and effectiveness.

CSC 443: ARTIFICIAL INTELLIGENCE (3 Units)
Introduction to Artificial Intelligence, Understanding natural languages, Knowledge representation, Expert systems, Pattern recognition, The Language LISP, Machine Learning, Artificial Neural Network, Genetic Algorithm, Fuzzy Set Theory and Fuzzy Logic.

CSC 447: ORGANIZATION OF PROGRAMMING LANGUAGE (3 Units)
Language definition structure, Data types and structures, Review of basic data types, including list and trees, control structure and data flow, Runtime consideration, interpretative languages, lexical analyses and parsing, evaluation of programming languages.

CSC 491 SEMINAR I (1 unit)
Presentation of topics related to final year project.

CSC 431: LOGIC PROGRAMMING (2 Units)
Introduction to functional programming language, first order logic: terms, predicate, clauses, relations and algorithm. Robinson's substitution, property of substitution, occur problem. K-Clark theory, SLD, resolution (Selection rule-driven, Linear resolution for Definite classes), property of SLD, infinite SLD tree, rules of Close World Assumption (CWA). Application programming with emphasis on PROLOG.

CSC 435: SPECIAL TOPICS IN COMPUTER SCIENCE (2 Units)
In depth study of selected topics will be taught in a seminar format. Research methods; choosing and evaluating references; collecting data; analyzing data; critical evaluation of research; report writing skills; presentation skills. Selected topics would be given to the students at the commencement of the semester.

CSC 437: INFORMATION AND COMMUNICATION THEORY (2 Units)
Historical background of information theory, the entropy function and its properties, joint and conditional entropy, discrete memory-less channels, models for communication systems, classification of channels, channel capacity, decoding schemes, the fundamental theorem and its weak converse, finite state channels, continuous channels, entry in the continuous case

CSC 439: COMPUTER SYSTEM PERFORMANCE EVALUATION (3 Units)
Measurement techniques, Simulation techniques, Techniques, Work load characterization, Performance evaluation in selection problems, Performance evaluation in design problems, Evaluation of program performance.

CSC 441: QUEUING SYSTEMS (3 Units)
Introduction; Birth-death queuing systems; Markovian queues, the queue M/GI bounds, inequalities and approximations.

CSC 445 Special Topics in Software Engineering (3 Units)
Topics from process improvement; software re-engineering configuration management; Formal specification, software cost – estimation, Software Architecture, Software patterns, Software Reuse and Open source development.

CSC 440 Human-Computer Interaction (2 Units)
Introduction to the field of Human-Computer Interaction (HCI) and an overview of software architectures used in modern graphical user interfaces. A variety of analysis and design methods are introduced (e.g. GOMS. heuristic evaluation, User-Centred Design and contextual design techniques). Interface implementation with the Java Swing toolkit. Evaluations of user interfaces according to usability and accessibility standards will be covered. Quality of design, user-centered approach to interface development is emphasized. Relevant of HCI is also central to recent technological developments such as hypertext, multimedia, virtual reality and the web. Psychological aspects of the individual user, universal design principles, and User Centered Design (UCD) models. Interactive system development lifecycle and its requirements, major themes and recent trends in HCI, interaction design models, participatory design, Information Architecture (IA), adaptive interfaces, measuring the User Experience (UX), social computing and online communities, mobile computing and issues surrounding the design for smaller screens, ubiquitous computing, Computer Mediated Communication (CMC) and Computer Supported Cooperative Work (CSCW).

CSC 442: NETWORK PROGRAMMING (3 Units)

Client server model and software design program interface to protocols. File Descriptor, Socket Descriptor, Datagram Socket, Data Encapsulation, System Burst (bind, connect, listen, accept, send/to, send/from). Remote call procedures, port addressing protocols. Implementing client-server using IP, TCP and UDP protocols. Distributed program generation

CSC 444: NET-CENTRIC COMPUTING (2 Units)

Advanced and modern concepts and technologies used in the development of electronic business applications. Component development and reuse, distributed object technologies, multi-tier applications, client-side versus server-side technologies, service-oriented architectures, enterprise application integration, data transformation, role of open-source technologies, and finally e-business application installation and deployment issues. Principles of distributed computing, the Internet as a huge computer system, distributed computing models: client-server model, multiple-server model, mobile agents model, and computer networks, TCP applications, IP layer applications, socket management, inter-process communication, UNIX case study, distributed object oriented architectures; design issues, applications in client-server computing, introduction to distributed file systems, name servers, mobile computing, modern trends in distributed computing.

CSC 446: COMPUTER NETWORKS & DATA COMMUNICATION (3 Units)

Introduction, wares, Fourier analysis, measurement of communication, channel characteristics, Transmission media, noise and distortion, modulation and demodulation, multiplexing, TDM FDM and FCM parallel and serial transmission (synchronous VS anal synchronous). Basic concepts of inter-active computing, un-interactive terminal devices protocol, direct links, communication channels, telecommunication links, simplex, duplex and hard duplex, multiplexer, concentration. Computer network structures and loop systems, computer network examples and design consideration, data switching principle broadcast techniques, network structure for packet switching, protocol, description of networks e.g. ARPANET, etc. Network Operating system for online processing scheduling algorithm, response time, reliability and security.

CSC 448: ENTREPRENEUR FOR COMPUTER SCIENCE (2 UNITS)

Meaning of Technopreneur. Classifications of entrepreneurs in IT. Characteristics of Information Technology Entrepreneur. Small, medium and Large IT Entrepreneur. Characteristics of entrepreneurship in IT and rewards. Management challenges in IT business. IT Business outlook in Nigeria. Comparative analysis of IT business between Third World Countries and Developed Countries. New ideas and opportunities identification, Competitive strategy for Technopreneurs, Intellectual property consideration. Value-based selling. Business plan design.

CSC 412: MODELLING AND SIMULATION (3 Units)

Foundations of model-based information systems management, basic concepts and techniques of simulation modeling, simulation as decision-support tool and a problem-solving approach. Emphasis will be on discrete-event simulation model development methodologies and implementation techniques. The concepts and techniques used in modeling and simulation, simulation methodology and suitable simulation language Modeling generation of random variables, transformation of random numbers, parameter estimation, design of experiment; factorial design, optimization. Distribution theory model and simulation. Kendal notation, Little's Law, Stochastic Processes, Queues and special types of queues, Discrete state and continuous state processes, Markov Processes, Poisson Processes.

CSC 416: COMPUTER SECURITY AND CRYPTOGRAPHY (2 Units)

Fundamentals of computer and network security, systems and protocols for providing security services, access control, secure mail, internet protocol security, secured http, web security. Counter measures: cryptography (public and private key encryption), intrusion detection, firewalls, access control, counter cyber-terrorism. Number system, encryption, decryption, private and public key, divisibility and Euclidean algorithms, arithmetic of congruence and large prime numbers, hash function, RSA, DSA, Rabin, El-Gamel, Secure Socket layer algorithms. Security fundamentals, policies, procedures, and mechanisms. Identification, authentication models, access control models. Data models, concepts and mechanisms for software, hardware, operating system and database security. Basic cryptography (symmetric and asymmetric) and its applications. Security in computer networks and distributed systems. Attacks types and how to prevent them. Prevention and control of viruses and other rogue programs. In addition, the basics of physical security, incidence response, disaster recovery, business continuity, and forensics.

CSC 418: DISTRIBUTED COMPUTING SYSTEM (3 Units)

Introduction, definition, motivation, communication mechanisms, distributed transactions, Naming, generic schemes, DNS, naming and localization, Replication and coherence, Consistency models and protocols, fault tolerance, Group protocols, RPC, RMI, Stream oriented communication, synchronization, global state, election, distributed mutual exclusion, communication, two and three phase commit, check pointing, security, access control, key management, cryptography, distributed file system NFS, coda e.t.c.

CSC 420: STATISTICAL COMPUTING & DATA MINING (2 Units)

This course offers an introduction to data mining concepts and techniques. The goal is for the students to have a solid foundation in data mining that allows them to apply data mining techniques to real-world problems and to conduct research and development in new data mining methods. Topics include data mining concepts and techniques, data preparation, data mining algorithms and methods including association analysis, classification, cluster analysis, Online Analytical Processing (OLAP) and dimensionality modeling as well as emerging applications and trends in data mining. Students should be introduced to some software packages e.g R, WEKA, RapidMiner etc.

CSC 438: PROJECT MANAGEMENT (3 Units)

Team Management, Project Scheduling, Software measurement and estimation techniques, Risk analysis, Software quality assurance, Software Configuration Management, Project Management tools

CSC 492: SEMINAR II (1 unit)

Presentation of implementation and results' analysis of the final year project

CSC 499 PROJECT (4 Units)

INDEPENDENT RESEARCH WORK IN COMPUTER SCIENCE

Independent research work in Computer Science. Students will give a seminar presentation from introduction to implementation stage of their research work. Final bound report should be submitted at least two weeks before the final semester examination.

	4 YEAR PROGRAMME
(A) University Compulsory Courses	
(i) General Studies (GNS)	9
(ii) Relevant Compulsory Course (PHS 242, STS 181) (iii) Other courses (AEM 102, ETS 206)	3 3 2 2
(iv) 100 level Courses	41
(B) Core Courses	
(i) 200 Level	39
(ii) 300 Level	23
(iii) 400 Level	32
(iv) Industrial Training	16
(C) All Electives	9
Total	179

STAFF ADDRESS BOOK

Address Book for Department of Computer Science.

S/N	Name/Status	E-mail Address	Phone Number
1.	Dr. (Mrs.) S.A. Onashoga Reader	bookyy2k@yahoo.com onashogasa@gmail.com onashogasa@funaab.edu.ng	08033537505
2.	Prof. A. T. Akinwale Professor	aatakinwale@yahoo.com akinwaleat@funaab.edu.ng	08062867612
3.	Prof. O. Folorunso Professor	folorunsolusegun@yahoo.com folorunsoo@funaab.edu.ng	08035640707
4.	Prof. A. S. Sodiya Professor	sinaronke@yahoo.co.uk sodiyaas@funaab.edu.ng	08034551851
5	Dr. O. A. Ojesanmi Reader	dejioje@yahoo.com ojesanmioa@funaab.edu.ng	08056052007
6.	Dr. (Mrs.) O. T. Arogundade Reader	Sheflaw@yahoo.com Onashogasa@funaab.edu.ng	07030700561
7.	Dr. (Mrs.) O. R. Vincent Senior Lecturer	Vincent.rebecca@gmail.com vincentor@funaab.edu.ng	07037832842
8.	Dr. F. T. Ibharalu Senior Lecturer	tomibharalu@yahoo.com ibharaluft@funaab.edu.ng	08033447288
9.	Dr. A. Abayomi-Alli Senior Lecturer	abayomiallia@funaab.edu.ng	07030672420
10.	Dr. Aborisade, D. O. Lecturer I	aborisadeda@funab.edu.ng	08056535109
11	Dr. (Mrs.) Ojo, O. E. Lecturer II	folakeolayiwola@yahoo.com ojoeo@funaab.edu.ng	07032813890
12	Mr. Salako, O. S. Lecturer II	timislx2000@yahoo.co.uk salakoos@funaab.edu.ng	08051693854
13	Mrs. Tinubu C.O Lecturer II	oloruntobaoreoluwa@gmail.com	08066296775
14	Mrs. Adejimi, A. O. Assistant Lecturer	a_olasumbo@yahoo.com adejimiao@funaab.edu.ng	08062433677
15	Mr. Olubiyi, A. C. Principal Technologist	oomighty@yahoo.com olubiyiac@funaab.edu.ng	08060266432
16	Mr. Fasunwon, O. W. Chief System Analyst	exmay548@yahoo.co.uk	08033664434
17	Mrs. Amusa, O. L. Principal Data Analyst	Prettyrosey2k@gmail.com amusaol@funaab.edu.ng	08038565520
16	Mr. Onaolapo Sodiq Senior Data Entry Operator II	onaolapos@funaab.edu.ng	08032946718
17	Mrs. Ake, O. B. Senior Secretarial Assistant I	akeolabisi@gmail.com/ akeob@funaab.edu.ng	08067331292
18	Mr. Erinoso P. O. Senior Clerical Officer	johnmary200806@gmail.com	08182919790

1. ADDITION AND DELETION OF COURSES

i. A student shall normally be allowed to add or delete course from the list of courses already registered for, provided he is not violating the minimum and maximum work load regulation.
ii. Such requests to delete or add courses shall normally be expected prescribed form obtainable from the Academic Office or via the University portal.
iii. Any student intending to delete or add courses shall normally be expected to seek advice of his Head of Departments or course adviser before proceeding to complete the firm.
iv. All requests to add courses must be made within the first four weeks of each semester in which the courses are being offered.
v. Requests to delete courses shall normally not be permitted beyond the end of the 9^{th} week of the commencement of lectures in those courses.

12. DURATION OF DEGREE COURSES

To qualify for an honour degree, a student shall complete all his degree requirements within the minimum period prescribed, or a period not exceeding two additional years beyond the prescribed minimum duration. Any student who spends more than two extra year over and above the prescribed minimum duration shall only be awarded a certificate of attendance.

Students who cannot meet all their degree requirements within two years in excess of the minimum duration, shall be required to withdraw from the University without the award of any degree.

13. QUALIFYING FOR THE AWARD OF B.SC DEGREE

To qualify for the award of a degree, a student must meet the following requirements:

(i) must have spent not less than the minimum period and not exceed the maximum duration prescribed for the programme (two years over and above the minimum; or
(ii) must have registered for and passed all CORE, COMPULSORY and ELECTIVE courses prescribed for the degree programme;
(iii) must have passed not less than the minimum course units specified for the degree;
(iv) must obtain not less than a CGPA or 1.00 at the end of the programme;
(v) must have satisfied all other University requirements as may be prescribed from time to time by Senate;
(vi) must also have been found worthy in character throughout the duration of his studies.

14. MISCONDUCT AND PENALTIES

A. SANCTIONS FOR EXAMINATION MISCONDUCT

S/No	Offence	Penalties
1	Failure to produce Identity Card	Reprimand and counselling for two weeks for the first time
2.	Smoking in and examination hall	Reprimand and counselling for two weeks for the first instance Rustication for the second time and expulsion for third time
3.	Raising of flies alarm in an examination	Rustication for one semester
4.	Making noise during an examination	Reprimand and counselling for two weeks
5.	Refusal to submit oneself for search by an invigilator	Rustication for two semesters and counselling
6.	Unauthorized possession of blank University examination answerer sheets	Rustication for two semesters and counselling
7.	Mutilation or removal of any answer script or paper supplied	Rustication for two semeste4rs plus counselling
8.	Failure to submit answer script to the invigilator after an examination	Rustication for two semesters plus counselling for the first time. Expulsion for the second time
9.	Unauthorized verbal and non-verbal communication between candidates during an examination	Rustication for one semester for first offender and expulsion from the university if caught for the second time
10.	Communication involving “passing” of answer scripts or other accessories to aid performance in exami9nation	Rustication for two semesters for first offender and expulsion from the University if caught for the second time
11.	Possession or use of any unauthorized materials such as notes. Scraps electronic aids. etc to aid performance in an examination	`Expulsion- if used or has bearing. Rustication for two semesters- if it does not have bearing
12.	Refusal to sit for/and preventing other students form sitting for an examination anywhere on the campus.	Expulsion
13.	Smuggling of prepared answer scripts into examination hall or submission of same on the false presence that they were prepared in the examination hall	Expulsion from the University

B. Sanctions for Misconduct in the Hostel

S/No	Offence	Penalties
1	Squatting in Hostels	Expulsion from both offenders from the hostels for the session
2.	Squatting of non-student	Rustication for two semesters and loss of right to accommodation for the rest of stay in the University
3.	Obtaining ext4ra bed space in the hostel	Expulsion from the hostel
4.	Keeping of pets in the hostel	Expulsion from hostel
5.	Using bathrooms and toilets indecently, washing or spreading cloths on the verandah; Destroying ornamental plants, cooks in the rooms or along the corridors	Warning to expulsion form the hostel depending of the gravity of the offence
6.	Use of high voltage cooking appliance including hot plate with or altering electrical installations. Use of gas. Kerosene stove, in the room	Expulsion from the hostel
7.	Taking away door keys during vacation/closures or duplication without	Expulsion form the hostel and payments of reparation fee permission
8.	Removal of University property from one hostel to another without permission	Expulsion from the hostel
9.	Keeping guests and visitors in the rooms outside the official hours	Suspension from the hostel for one semester and forfeiture of bed space and accommodation fee
10.	Organizing private parties in the rooms without official permission of the hall warden	Expulsion from the hostel and forfeiture of bed space and accommodation fee

C. Sanctions for Misconduct in the University Library

S/No	Offence	Penalties
1.	Stealing library book/journals Stealing library/journals	Expulsion from the University
2.	Removal of pages/Mutilation of library books/journals`	Ranges from rustication for two semesters to expulsion depending on the gravity
3.	Damages of library books/journal/multi-media/audio visual and other library materials	Reprimand and surcharge of any damage done to the library books/journals/muti-media/audio visual and other library materials
4.	Violation of other library rules and regulations i.e. eating , disturbing, noise-making etc	Removal to suspension from the University Library for a period as may be determined by SDC
5.	Gaining entry into the library without identity card	Reprimand to suspension from the University Library for a period as may be determined by SDC

D. Sanctions for Misconduct Involving University Property

S/N	Offence	Penalties
1.	Tampering with , damage to or destroying any University property	Payment of reparation fees and reprimand
2.	Illegal conversion of University property to personal use	Rustication from the University for two semesters
3.	Illegal entry or occupation of the Vice-Chancellor's lodge or the residence of other University staff.	Expulsion from the University
4.	Demonstration resulting in vandalization and/or theft of University property and those of staff or visitors	Reprimand and Rustication for a minimum of two sessions, expulsion from the University and surcharge for any damage done to University Property

5.	Stealing of University property, farm produce. etc.	Expulsion from the University

E. Sanctions for misconduct Related to Environmental Issues

S/No	Offence	Penalties
1	Discharging human waste such as urine or excreta in an unauthorized place. Littering of the environment etc.	Reprimand for first offender and rustication for one semester thereafter
2.	Crossing the lawns	Reprimand and counselling of first offender then rustication for one semester if caught the second time
3.	Destroying of ornamentals, trees and animals, trees and animals on campus`	Reprimand, surcharge and rustication for one semester depending on the gravity of the offence
4.	Polluting the environment by throwing fire-works etc.	Reprimand for first offender and rustication for one semester thereafter

F. Misconduct Involving Interpersonal Relationship

S/No	Offence	Penalties
1.	Insubordination to University officials	Letter of warning or rustication for one semester or more
2.		Depending on the seriousness of the misconduct
3.	Engaging in betting, gambling on the University campus and hostels`	Rustication form the University for two semesters
4.	Engaging in hard drug use	Ranges from reprimand and counselling or rustication or expulsion
5.	Engaging in cases of drunkenness and smoking in public place. e.g. classroom laboratory, library and hostel	Counselling, rustication or expulsion from the University

		depending on the gravity of the offence
6.	Engaging in sexual assault and abuse	Expulsion from the University
7.	Constituting a threat to the life of other students and staff	Ranges from rustication to expulsion from the University
8.	Participating in and soliciting membership in respect of nay illegal or antisocial societies/fraternities activities	Expulsion from the University
9.	Membership of antisocial and illegal associations	Expulsion from the University
10	Defamation of character	Range from reprimand to rustication and expulsion from the University
11.	Participating in any disturbing noisy activity without permission	Reprimand and counseling or first offenders and rustication for one semester
12.	Organizing religious activities and erection of structures outside designated	Reprimand and counseling for first offenders and rustication for one semester including demolition of the structures

G. Matriculation Oath

S/No	Offence	Penalties
1.	Failure to recite and sign the matriculation oath, adhere strictly to the oath together with the stipulation on character as approved by Senate	Counseling, reprimand, rustication to expulsion from the University and withholding of a degree on the ground of violation of the matriculation oath and may lose studentship

H. Double Matriculation

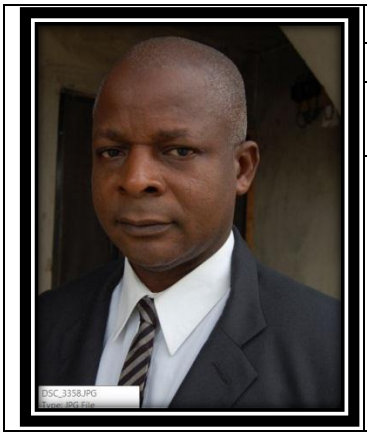
S/No	Offence	Penalties
1.	Matriculating in two institutions and attending both at the same time	Expulsion from the University

I. Miscellaneous

S/No	Offence	Penalties
1.	Any act perpetrated through internet facilities that are inimical to the integrity and corporate image of the university	Expulsion
2.	Illegal and unauthorized claiming of wall and fences except for safety reasons	Reprimand for first offender and rustication for one semester thereafter
3.	Attending lectures, staying in the hostel or re-entry into the university campus by any student who is on rustication or has been advised to withdraw from the University, without the Registrar's permission	Expulsion from the University
4.	Inviting or accommodating any outsider, whose actions can jeopardize the security and integrity of the University, that is not cleared officially	Rustication of offenders for a maximum of two sessions
5.	Failure to register at the University Health Centre not later than two months of his/her arrival on the campus	Non-release of results until after the registration
7.	Indecent dressing/exposure and involvement in pornographic activities	Punishments are as contained in the Dressing Codes
8.	Failure to register any student's organization with appropriate University authority	Rustication of the officers for a maximum of two Semesters

5. APPENDIX

	**NAME**	Dr. Onashoga, S. A
	RANK	Reader
	AREA OF SPECIALIZATION	Information Security, Data Mining Algorithm
	QUALIFICATION	Ph.D. (2010), M.SC. (2004), B.Sc. (2000), N.C.E (1996)

	**NAME**	Prof. Akinwale, A. T
	RANK	Professor
	AREA OF SPECIALIZATION	Artificial Intelligence, Database Systems and Discrete Computing
	QUALIFICATION	B.Sc., M.Sc, (Poland) Ph.D (Poland)

	**NAME**	Prof. Folorunso O.
	RANK	Professor
	AREA OF SPECIALIZATION	Intelligent Information Systems and Software Engineering
	QUALIFICATION	B.Sc. (Abeokuta), M.Sc. (Lagos), Ph.D (Abeokuta)

	**NAME**	Prof. A. S. Sodiya
	RANK	Professor
	AREA OF SPECIALIZATION	Computer Network Security Software Engineering and Information System
	QUALIFICATION	B.Sc. (Ago-Iwoye), M.Sc. (Lagos), Ph.D (Abeokuta)

	**NAME**	Dr. Ojesanmi, O. A.
	RANK	Reader
	AREA OF SPECIALIZATION	Networking /Mobile Security Technology
	QUALIFICATION	OND (Ibadan), B.Sc. (Ibadan), M.Sc., Ph.D (OAU)

	**NAME**	Dr. Arogundade, O. T.
	RANK	Reader
	AREA OF SPECIALIZATION	Software Engineering, Requirement Engineering and Human Computer Interaction
	QUALIFICATION	B.Sc. (Ondo), M.Sc. (Abeokuta), Ph.D. (China)

	**NAME**	Dr. Vincent O. R.
	RANK	Senior Lecturer
	AREA OF SPECIALIZATION	Business Intelligence Systems, Image Processing, and Information Engineering
	QUALIFICATION	N.C.E, B.Sc., M.Sc., Ph.D. (Abeokuta)

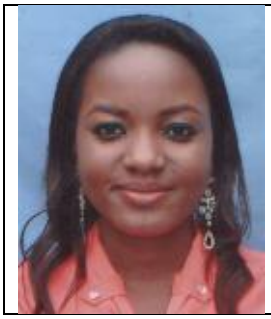
	**NAME**	Dr. Ibharalu, F. T.
	RANK	Senior Lecturer
	AREA OF SPECIALIZATION	Mobile Agent Technology and Software Engineering
	QUALIFICATION	B.Sc. (Benin), M.Sc. (Lagos), Ph.D. (Abeokuta)

	**NAME**	Dr. Abayomi-Alli, A.
	RANK	Senior Lecturer
	AREA OF SPECIALIZATION	Pattern Recognition and Soft Computing
	QUALIFICATION	B. Tech (Ogbomoso) M.Sc. (Ibadan) Ph.D. (Ogbomoso)

	**NAME**	Dr. Aborisade D. O.
	RANK	Lecturer I
	AREA OF SPECIALIZATION	Cloud and Cloud Database Security Digital Forensics
	QUALIFICATION	B.Sc. (Abeokuta), M.Sc. (Ibadan) Ph.D. (Abeokuta)

	**NAME**	Dr. (Mrs.) Ojo, O. E.
	RANK	Lecturer II
	AREA OF SPECIALIZATION	Protocol Modeling and Simulation, Multimedia Computing and Cloud Computing
	QUALIFICATION	B.Sc.(Ago- Iwoye), M.Sc. (Ife), Ph.D (Ife)

	**NAME**	Salako, O. S.
	RANK	Lecturer II
	AREA OF SPECIALIZATION	Creative Software Systems
	QUALIFICATION	B.Sc (Abeokuta) M.Sc (UK)

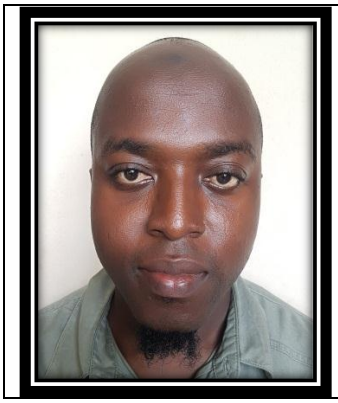
	**NAME**	Mrs. Tinubu, C.O.
	RANK	Lecturer II
	AREA OF SPECIALIZATION	Information Systems & System Security
	QUALIFICATION	B.Sc. (Abeokuta), M.Sc. (Lagos)

	**NAME**	Adejimi A. O.
	RANK	Assistant Lecturer
	AREA OF SPECIALIZATION	Computer Information Security and Risk Analysis.
	QUALIFICATION	NCE, B.Sc., (Abeokuta) M.Sc. (Abeokuta)

	**NAME**	Olubiyi A. C.
	RANK	Principal Technologist
	AREA OF SPECIALIZATION	Hardware and Networking
	QUALIFICATION	HND (Abeokuta), PGD (Abeokuta), MICT (Abeokuta) CCNA, ANISLT

	**NAME**	Fasunwon, O. W.
	RANK	Chief System Analyst
	QUALIFICATION	Computing Networking and Internet Services, CISCO Instructor

	**NAME**	Mrs. Amusa, O. L.
	RANK	Principal Data Analyst
	QUALIFICATION	HND (Offa) PGD (Abeokuta), M.Sc. (Abeokuta)

	**NAME**	Onaolapo Sodiq
	RANK	Senior Data Entry Operator II
	QUALIFICATION	B.Sc. (Computer Science) Abeokuta, 50WPM Diploma in Computer Science

	**NAME**	Ake, O. B
	RANK	Senior Secretarial Assistant I
	QUALIFICATION	SSCE, Diploma in Secretarial Studies

	NAME	Erinoso, Patrick Oluseyi
	RANK	Senior Clerical Officer
	QUALIFICATION	SSCE