

USMANU DANFODIYO UNIVERSITY, SOKOTO



FACULTY OF PHYSICAL AND COMPUTING SCIENCES

DEPARTMENT OF STATISTICS

B.Sc. Statistics

STUDENTS' HANDBOOK

2024



The Crest displays the year of the University's establishment, 1975. It also displays the Colours of the University; Purple, Green and White. The symbol of a Book at the centre of the crest depicts scholarship which the Usmanu Danfodiyo University is best known for. This significance is further emphasized by the motto of the University captioned in the Arabic word "Iqra" which means, "Read".



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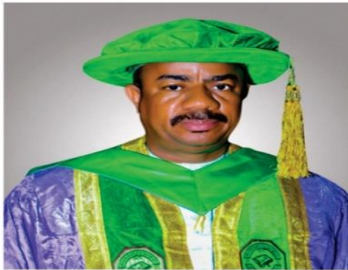
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DEAN'S MESSAGE – Faculty of Physical & Computing Sciences

It is with great pleasure that I welcome you to the Faculty of Physical and Computing Sciences of the Usmanu Danfodiyo University, Sokoto. As the Dean of our Faculty, I am excited to have you onboard as we journey through this academic mission. Our dedication and committed to teaching and research are awesome with an array of teaching and non-teaching Staff that are always determined to foster a conducive atmosphere worthy of intellectual curiosity, critical thinking and collaborative learning.

I humbly encourage you to actively participate in the range of academic and extracurricular activities and research initiatives that our esteemed University offers. Also, be mindful of the fact that your journey here is not only about acquiring knowledge but most importantly, the transformation of society through the meaningful application of the knowledge and character.

Let us embrace the challenges and successes that lie ahead, and work enthusiastically to make the academic journey truly remarkable. I Wish you all a fulfilling and rewarding academic pursuit.

Best Regards,

Prof. Aminu Mohammed



Prof. Yakubu Musa

Head of Department , Statistics

FOREWARD FROM THE HEAD OF DEPARTMENT

This publication is intended to be the handbook of information for Statistics students and other students that may be offering any course in the Department. It is meant to keep such category of students abreast with the set of rules and regulations that govern the conduct of every member of the Department in particular and generally the membership of the larger university community as it affects them in both their academic and welfare matters. It is also intended to give a general information concerning the courses run in the department for the class of students mentioned above.

The Department of Statistics run BSc Statistics Programme.

With emphasis on the development of the students' potentials in skills in problem solving. The programme has been carefully designed to enable its graduates maintain an acceptable track record in their academic and moral conduct throughout the duration of training and beyond.

The programme is designed to provide through grounding in theoretical and practical aspects while taking special consideration of the evident and neighbouring environments in Statistics. The courses in the Department are classified into core and elective. It is compulsory

for every student to register and pass core courses and minimum electives where applicable. I do hope that the courses as designed and planned by the Department will prove useful to you and will prepare you for either postgraduate or immediate employment.

It is hoped that the content of this handbook will meet the aspirations of our students and contribute positively in meeting the philosophy and objectives of Statistics programme.

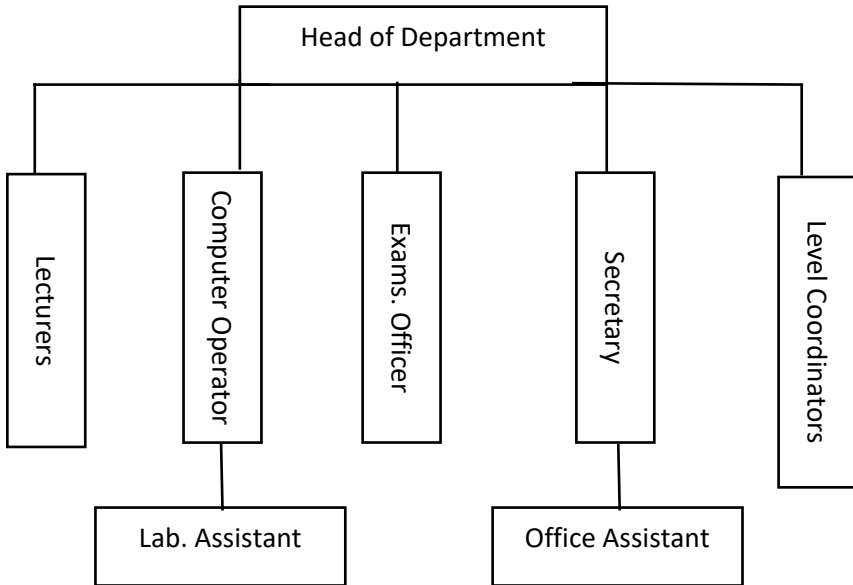
Prof. Yakubu Musa

Head of Department

TABLE OF CONTENTS

ORGANOGRAM.....	viii
BRIEF HISTORY OF THE DEPARTMENT	1
OBJECTIVES.....	2
ADMISSION REQUIREMENTS	3
GRADUATION REQUIREMENTS	3
COURSES FOR EACH SESSION AND CREDIT UNIT.....	4
COURSE CONTENTS AND DESCRIPTION	12
ACADEMIC REGULATIONS	40
STAFF STRENGTH.....	68

DEPARTMENTAL ORGANOGRAM:



BRIEF HISTORY OF THE DEPARTMENT

The Department of Statistics is one of the new departments that emerged from the splitting of former Faculty of Science and upgrade of academic units to departments by the University Senate at its 327th special meeting held on Friday 1st July, 2019. The creation of the Department was approved by the National University Commission (NUC) on 17th March, 2021. The Department has a responsibility of mounting programmes in statistics at both graduate and undergraduate levels. Prior to the creation of the Department, degree programmes in statistics are offered in the old Statistics Unit, which was established in 1992 under the Department of Mathematics of the old Faculty of Science. At present, the Department is under the Faculty of Physical and Computing Sciences

A four-year B. Sc. Degree programme in statistics started with the establishment of the Statistics Unit of the Department of Mathematics in 1992 with a view to produce competent statisticians in both theory and practical statistics. At present, the programme, received full accreditation status by NUC 2019 accreditation exercise. The first batch of graduates of the programme passed out at the end of 1996/1997 session. Since then, graduates are produced each session and most of them are now in central positions in banks, oil and gas sectors, Universities, National Population Commission, Polytechnics, Colleges of Education, Federal and States Ministries among others. Similarly, Postgraduate Programmes in Statistics are offered with specialization in Time series, Sampling Survey, Design of Experiment, Applied Statistics, Quality Control, Survival Analysis and Pattern Recognition leading to the award of Master of Science (M.Sc.) and Doctor of Philosophy (PhD) Degrees. In addition, Postgraduate Diploma in Statistics (PGDS) programme

was developed to cater for aspiring candidates with weakness and or from other related areas of specialization an opportunity to qualify for admission into Department of Statistics for M.Sc. programme. The department also provides service courses to some departments and faculties in the University such as Faculties of Agriculture, Education and Extension Services, life and Chemical Sciences among others.

PHILOSOPHY AND OBJECTIVES

Philosophy of the Programme

The programme seeks to address the needs for competent manpower in the theories, principles, methodologies and techniques of statistical sciences and operations research. The programme is structured to offer training in statistics, apply statistics, mathematics, operations research and computer science. It is planned to generate in students an appreciation of the importance of statistics in industrial planning, economic planning, environmental and social planning. The programme intends to provide students with intellectually stimulating and satisfying experience for learning and teaching.

Objectives of the Programme

The objectives of the programme are to:

- a- produce graduates who are competent in both theory and practice of statistics
- b- equip students with the capacity to apply statistics in different disciplines
- c- equip students in range of transferable skills and values in statistics and related employment
- d- prepare students for higher studies and professional advancement in statistics and related disciplines

- e- develop in students the ability to apply their statistical knowledge and skills in tackling solution of theoretical and practical problems in statistics

ADMISSION REQUIREMENTS

A student who wishes to be admitted into Bachelor of Science degree in Statistics must fulfill one of the following conditions:

- (a) For entry into 100 level Statistics, the requirements shall be five credit level passes in subjects including English Language, Mathematics, Physics, Biology and Chemistry at the Senior Secondary School Certificate or its equivalent. In addition, an acceptable pass in the University Matriculation Examination (UTME) into 100 level is required.
- (b) For entry into 200 level Statistics, candidates with two A level passes (graded A-E) at the Advanced Level in one or more relevant subjects (Mathematics, Physics and Further-Mathematics) may undertake the three – year degree programme. In addition, candidate must have the required number of credits at the O' level.

GRADUATION REQUIREMENTS

To graduate with B.Sc. (Hons) Statistics, a UTME student shall register a minimum of 156 while a DE student shall register a minimum of 117 credit units. Also note that students are not allowed to register more than 48 credits per session. For each student, the total grade points for a session equal the weighted sum of the grade points and the course credit units, and at any time, the cumulative grade point average (CGPA) equals the total grade points for all registered degree course divided by the total credit units of all registered degree courses.

COURSES FOR EACH SESSION AND CREDIT UNIT

100 LEVEL COURSES

FIRST SEMESTER COURSES

COURSE CODE	COURSE TITLE	CREDIT UNIT(S)
GST 101	Communication in English I	2 (2L, 0P)
GST 103	Information & Communication Technology (ICT)	1 (1L, 0P)
GST 104	Use of Library and Study skill	1 (1L, 0P)
STA 111	Probability I	4 (3L, 1P)
STA 113	Basic Statistical Methods	3 (2L, 1P)
MAT 101	Elementary Mathematics I	3 (3L, 0P)
CMP 101	Introduction to Computer	3 (3L, 0P)
		17 units
ELECTIVES*		
PHY 101	General Physics I	3 (3L, 0P)
CHM 101	General Chemistry I	4 (4L, 0P)
BIO 101	General Biology I	4 (4L, 0P)
MAN 103	Introduction to Business Administration	3 (3L, 0P)
ECO 101	Economic Theory/ Principles	4 (4L, 0P)
	Total	18 Units

SECOND SEMESTER COURSES

COURSE CODE	COURSE TITLE	CREDIT UNIT(S)
GST 102	Nigerian Peoples and Culture	2 (2L, 0P)
GST 105 OR GST 106	Communication in French OR Communication in Arabic	2 (2L, 0P)
STA 112	Descriptive Statistics	3 (2L, 1P)
STA 114	Introduction to Statistical Computing	2 (0L, 2P)
MAT 102	Elementary Mathematics II	3 (3L, 0P)
MAT 103	Elementary Mathematics III	3 (3L, 0P)
	Total	15 Units
ELECTIVES*		
PHY 102	General Physics II	3 (3L, 0P)
CHM 102	General Chemistry II	4 (4L, 0P)
BIO 102	General Biology II	4 (4L, 0P)
	Total	11 Units

** Select a **minimum of (7) units** and a **maximum of (16) electives course units** from **first and second semester***

200 LEVEL COURSES

FIRST SEMESTER COURSES

COURSE CODE	COURSE TITLE	CREDIT UNIT(S)
GST 211	Communication in English II	2 (2L, 0P)
GST 213	History and Philosophy of Science	2 (2L, 0P)
STA 211	Probability II	4 (4L, 0P)
STA 214	Introduction to Social and Economic Statistics	2 (2L, 0P)
MAT 201	Mathematical Methods	3 (3L, 0P)
MAT 204	Linear Algebra I	2 (2L, 0P)
MAT 207	Intro. To Numerical Analysis	3 (3L, 0P)
CMP 201	Computer Programming I	4 (3L, 1P)
	Total	22 Units
ELECTIVES*		
CMP 204	Introduction to Data Processing	2 (2L, 0P)
	Total	2 Units

SECOND SEMESTER COURSES

COURSE CODE	COURSE TITLE	CREDIT UNIT(S)
GST 212	Logic, Philosophy and Human Existence	2 (2L, 0P)
GST 214	Peace Studies and Conflict Resolution	2 (2L, 0P)
STA 202	Statistics for Physical Science & Engineering	4 (4L, 0P)
STA 212	Statistical Inference I	4 (4L, 0P)
STA 213	Statistical Computing I	2 (0L, 2P)
CMP 202	Computer Programming II	3 (2L, 1P)
	Total	17 Units
ELECTIVES*		
MAT 202	Elementary Differential Equations I	3 (3L, 0P)
MAT 205	Linear Algebra II	2 (2L, 0P)
MAT 206	Real Analysis I	3 (3L, 0P)
CMP 203	Introduction to Computer System	2 (2L, 0P)
	Total	10 Units

* 200 level Electives courses: Select a **minimum of (0) units** and a **maximum of (9) units** from any first and second semester electives courses.

300 LEVEL COURSES

FIRST SEMESTER COURSES

COURSE CODE	COURSE TITLE	CREDIT UNIT(S)
GST 311	Entrepreneurship and Innovation	2 (2L, oP)
STA 311	Probability III	4 (4L, oP)
STA 313	Regression Analysis I	2 (2L, oP)
STA 315	Statistical Inference II	4 (4L, oP)
STA 317	Sampling Theory & Survey Methods	4 (4L, oP)
STA 328	SIWES I	3
	Total	19 Units
ELECTIVES		
STA 319	Statistical Quality Control	4 (4L, oP)
STA 323	Biometry	4 (4L, oP)
STA 324	Operations Research	4 (4L, oP)
MAT 303	Elementary Differential Equation II	3 (3L, oP)
MAT 309	Introduction to Mathematical Modeling	3 (3L, oP)
CMP 305	Data Structure & Algorithms	4 (3L, 1P)
	Total	22 Units

SECOND SEMESTER COURSES

COURSE CODE	COURSE TITLE	CREDIT UNIT(S)
GST 312	Venture Creation and Growth	2 (2L, 0P)
STA 312	Distribution Theory	2 (2L, 0P)
STA 314	Analysis of Variance I	2 (2L, 0P)
STA 316	Lab. and Field Work on Experimental Design and Inference	2 (0L, 2P)
STA 318	Lab. and Field Work for Sampling and Survey Methods	2 (0L, 2P)
STA 327	Design and Analysis of Experiments I	3 (3L, 0P)
	Total	13 Units
ELECTIVES		
STA 320	Lab and Field Work for Statistical Quality Control	2 (0L, 2P)
STA 321	Demography	2 (2L, 0P)
STA 322	Lab and Field Work for Demography	2 (0L, 2P)
STA 325	Statistical Computing for Linear Programming	2 (0L, 2P)
STA 326	Statistical Computing II	2 (0L, 2P)
MAT 304	Vector and Tensor Analysis	3 (3L, 0P)
MAT 308	Real Analysis II	3 (3L, 0P)
MAT 310	Discrete Mathematics	4 (4L, 0P)
CMP 309	Database Design and Management	2 (1L, 1P)
	Total	22 Units

* 300 level Electives courses: Select a **minimum of (7) units** and a **maximum of (16) units** from any of first and second semester electives courses.

400 LEVEL COURSES

FIRST SEMESTER COURSES

COURSE CODE	COURSE TITLE	CREDIT UNIT(S)
STA 411	Probability IV	4 (4L, 0P)
STA 413	Time Series	4 (3L, 1P)
STA 415	Regression Analysis II	2 (1L, 1P)
STA 417	Analysis of Variance II	2 (1L, 1P)
STA 422	Sampling Theory and Survey Methods II	4 (4L, 0P)
	Total	16 Units
ELECTIVES		
STA 418	Bayesian Inference	4 (4L, 0P)
STA 419	Non-Parametric Methods	4 (4L, 0P)
STA 427	Modeling and Simulation	4 (2L, 2P)
STA 431	Environmental Statistics	3(3L, 0P)
STA 434	Medical Statistics	3(3L, 0P)
STA 436	Demography II	3 (3L, 0P)
STA 437	Actuarial Statistics	3 (3L, 0P)
STA 440	Logical Background of Statistics and Decision Theory	4 (4L, 0P)
	Total	28 Units

SECOND SEMESTER COURSES

COURSE CODE	COURSE TITLE	CREDIT UNIT(S)
STA 412	Stochastic Process	4 (4L, oP)
STA 414	Design and Analysis of Experiments II	4 (3L, 1P)
STA 430	SIWES II	3
STA 423	Project	6
	Total	17 Units
ELECTIVES		
STA 416	Biometry	4 (4L, oP)
STA 421	Psychometrics	4 (4L, oP)
STA 424	Game Theory	4 (3L, oP)
STA 425	Decision Theory	4 (4L, oP)
STA 426	Further Topics in Operations Research	4 (4L, oP)
STA 432	Educational Statistics	3(3L, oP)
STA 433	Health Statistics	3(3L, oP)
STA 435	Energy Statistics	3 (3L, oP)
STA 438	Distribution Theory II	4 (4L, oP)
STA 439	Statistical Inference IV	4 (4L, oP)
STA 441	Econometric Methods	3 (3L, oP)
	Total	40 Units

* 400 level Electives courses: Select a **minimum of (6) units** and a **maximum of (15) units** from any of first and second semester electives courses.

COURSE CONTENTS AND DESCRIPTION

100 LEVEL COURSES

GST 101: Communication In English I

(2 Units)

Effective communication and writing in English, Language skills, Writing of essay answers, Comprehension, Sentence construction, Outlines and paragraphs, Collection and organization of materials and logical presentation, Punctuation.

GST 102: Nigerian Peoples and Culture

(2 Units)

Study of Nigerian history, culture and arts in pre-colonial times, Nigerian's perception of his world, Culture areas of Nigeria and their characteristics, Evolution of Nigeria as a political unit, Indigene/settler phenomenon, Concepts of trade, Economics of self-reliance, Social justice, Individual and national development, Norms and values, Negative attributes and conducts (cultism and related vices), Re-orientation of moral and national values, Moral obligations of citizens, Environmental problems.

GST 103: Information Communication Technology (ICT)

(1 Unit)

Development of modern ICT, Hardware technology, Software technology, Input devices, Storage devices, Output devices, Communication and internet services, Word processing skills (typing, etc).

GST 104: Use of Library and Study Skills

(1 Unit)

Brief history of libraries, Library and education, University libraries and other types of Libraries, Study skills (reference

services), Types of library materials, using library resources including e-learning, e-materials, etc, understanding library catalogues (card, OPAC, etc) and classification, Copyright and its implications, Database resources, Bibliographic citations and referencing.

GST 105: Communication in French

(2 Units)

Introduction to French, Alphabets and numeracy for effective communication (written and oral), Conjugation and simple sentence construction based on communication approach, Sentence construction, Comprehension and reading of simple texts.

GST 106: Communication in Arabic

(2 Units)

Introduction to Arabic alphabets and writing systems, Elementary conversational drills, Basic reading skills, Sentence construction in Arabic.

STA 111 Probability I

4(3L, 1P) Units

Generation of statistical events from set-theory and combinatorial methods. Elementary principles of probability. Types and distributions of random variables; the binomial, Poison, hypergeometric, normal and exponential distributions; Expectations and moments of random variables; probability sampling from tables of random numbers; selected application/practical.

STA 112 Descriptive Statistics

3(2L, 1P) Units

Basic statistical concepts. Statistical data: Types, sources, methods of collection, classification, presentation and interpretation of statistical data. Frequency distribution, Measures of location, partition, dispersion, skewness and kurtosis. Moments and Sheppard's correction. Error and Approximation, Rates, ratios and index numbers Applications/Practical

STA 113 Basic Statistical Methods

3 (2L, 1P) Units

Population and sample, sampling distribution, Estimation (point and interval) and tests of hypothesis concerning population mean and proportion. Elementary time series, demographic measures. Design of experiments. Analysis of variance and covariance. Simple regression and correlation. Contingency tables. Some non-Parametric tests. Applications/practical.

STA 114 Introduction to Statistical Computing

2 (0L, 2P) Units

Introduction to and use of calculators. Introduction to Computer: structure, types and applications. Computations involving topics in STA 111, 112 & 113. Pre-requisite: STA 111, STA 112, and STA 113.

MAT 101 Elementary Mathematics I

3(3L+0P) units

Elementary set theory: subjects, union, intersection, complements, Ven diagrams. Real numbers, integers, rational and irrational numbers, mathematical induction, real sequences and series, theory of quadratic equations, binomial theorem. Complex numbers: algebra of complex numbers, the Argand

diagram, De Moivre's theorem, trigonometric functions of angles of any magnitude, addition and factor formulae. Angles: rotation, radians, trigonometric ratios, reciprocal ratios, Pythagora's theorem, special angles. Trigonometric identities, trigonometric formulas.

MAT 103 Elementary Mathematics III

3(3L+0P) units

Function of a real variable, graphs, limits and idea of continuity. The derivative as limit of rate of change. Techniques of differentiation. Extreme, curve sketching. Integration as an inverse of differentiation. Methods of integration. Definite integrals. Application to areas and volumes. Two-dimensional co-ordinate geometry: straight lines, circles, parabola, ellipse, hyperbola. Tangents and Normal. Pre-requisite- MTH 101

CMP 101 Introduction to Computer Science

3(2L+1P) units

History and generations of Computers, Characteristics of computers; Computer Hardware: Functional components of computers and Modern I/O units. Software: Operating Systems and Application Packages. Definition, types and applications of computer networks. Introduction to OSI and TCP/IP models. Introduction to databases: review of database management systems and applications, how to use Microsoft access DBMS software to create databases and establish relationship between the tables. Introductory aspect of human computer interaction.

PHY 101 General Physics I (Mechanics & Properties of Matter)

3(3L+0P) units

Space, time and frame of reference, Measurements, Units and dimension, Scalars and Vectors, Kinematics motion in one and two dimensions, fundamental laws of mechanics, force and

momentum, Newton's laws of motion and applications; Parallelogram and triangular laws of forces, applications, Statics and dynamics, moments of a force or torque, principles of moments, equilibrium under parallel forces, couples, torque, centre of gravity and centre of mass of different objects, linear momentum, conservation of linear momentum, collisions; Work, energy and power, Circular motion, simple harmonic motion, Law of Universal gravitation, circular orbit, and escape velocity, rigid body and rotational motion, moment of inertia, angular momentum and conservation laws. Elasticity; Stress and Strain, Hook's Law. Young's modulus, bulk and shear modulus, Poisson's ratio. Hydrostatics: pressure, buoyancy and Archimedes Principle, Surface tension: Stokes Law and terminal velocity, surface energy, angle of contact, adhesion, cohesion. Capillarity, drops and bubbles, Hydrodynamics streamlines and Bernoulli's Principle, Laminar and turbulent flow. Reynolds's number, Viscosity, Poiseuille's equation for flow of liquid through a tube.

PHY 102: General Physics II (Electricity and Magnetism)

3(3L+0P) units

Electrostatics, Electric force and field, Electric flux, Conductors and current electricity, dielectric and capacitance, Magnetic force, field and magnetic materials, Magnetic effects of current, Electromagnetic induction, electromagnetic oscillations and waves. Applications.

CHM 101 General Chemistry I

4(4L+0P) Units

Atoms, Molecules and Chemical reaction. Chemical equations and stoichiometry. Atomic Structure and periodicity. Modern electronic theory of atom. Radioactivity. Chemical Bonding. Introduction to properties of gases: (Compressibility, Expandability, Volumes of Gases Versus Volumes of Liquids or

Solid), Review of ideal gas laws. Equilibria and Thermodynamics. Introduction to Chemical Kinetics: Order and molecularity of chemical reactions, kinetics of first order reactions. Electrochemistry.

CHM 102 General Chemistry II

4(4L+0P) units

Historical survey of the development of organic chemistry. Nomenclature and classes of organic compounds. Homologous series. Introduction to functional groups. Isolation and purification of organic compounds. Quantitative organic chemistry. Stereochemistry (Conformational and configurational). Determination of structure of organic compounds. Electronic theory in organic chemistry. Saturated hydrocarbons. Unsaturated hydrocarbons. Periodic Table and Periodic properties; (Size, Ionization Energy, Electron Affinity, Electronegativity, Lattice and Hydration Energies). Valence Forces; structure of solids. The chemistry of selected metals and non-metals.

BIO 101 General Biology I

3(3L+0P) units

Cell structure and organization, functions of cellular organelles, diversity, characteristics and classification of living things, general reproduction, interrelationship of organisms; heredity and evolution, elements of ecology and types of habitat.

BIO 102 General Biology II

3 Units

A generalized survey of the plant and animal kingdoms. Study of plant cryptogams, Seed plant and fungi based on their external morphology, physiology, reproduction and dispersal. Classes of Invertebrate and vertebrate animals, their structure, functions and level of organization including nutrition, physiology, respiration, excretion, circulatory systems and reproduction, differences in their external features, ecological adaptation of these forms

200 LEVEL COURSES

GST 211 Communication in English II

(2 Units)

Logical presentation of papers, Phonetics, Instruction on lexis, Art of public speaking and oral communication, Figures of speech, Précis, Report writing.

GST 212 Logic, Philosophy and Human Existence

(2 Units)

(A) Islamic Philosophy

Definition, scope, relationship between Philosophy and religion (Islam). Theory of knowledge in Islam. A critical review of the sources of knowledge (perception), experience, reason, intuition etc, with special emphasis on the role of REVELATION as the most reliable source of knowledge. Ultimate reality: Allah and his attributes, critical review of philosophical proofs, Qur'anic approach to providing the existence of Allah, Predestination and freedom of will as aspect of Allah's knowledge and power. Prophet -hood and the Day of Judgment. Ethics in Islam

(B)Western Philosophy

A brief survey of the main branches of Philosophy: Symbolic Logic, Special symbols in Symbolic Logic-conjunction, negation, affirmation, disjunction, equivalent and conditional statements; Law of Tort. The method of deduction, using rules of inference and bi-conditionals qualification theory. Types of discourse: Nature of arguments, Validity and soundness; Techniques for evaluating arguments; Distinction between inductive and deductive inferences, etc. (Illustrations will be taken from familiar texts, including literature materials, Novels, Law reports and newspaper publications).

GST 213 History and Philosophy of Science

(2 Units)

Man – his origin and nature, Man and his cosmic environment, Scientific methodology, Science and technology in the society and service of man, Renewable and non-renewable resources – man and his energy resources, Environmental effects of chemical plastics, Textiles, Wastes and other material, Chemical and radiochemical hazards, Introduction to the various areas of science and technology. Elements of environmental studies.

GST 214 Peace Studies and Conflict Resolution

(2 Units)

Basic Concepts in peace studies and conflict resolution, peace as a vehicle of unity and development, Conflict issues, Types of conflicts, e.g. Ethnic/religious/political/economic conflicts, Root causes of conflicts and violence in Africa, Indigene/settler phenomenon, Peace – building, Management of conflict and security. Elements of peace studies and conflict resolution, Developing a culture of peace, Peace mediation and peace-keeping, Alternative Dispute Resolution (ADR), Dialogue/arbitration in conflict resolution, Role of international

organizations in conflict resolution, e.g. ECOWAS, African Union, United Nations, etc.

STA 201 Statistics for Agriculture And Biological Sciences

4 (4L+op) Units

Use of statistical methods in biology and agriculture. Frequency distributions, measure of location, partition and dispersion. Elements of probability, laws of probability. The binomial, Poisson, geometric, hypergeometric, negative binomial and normal distributions. Estimation (point and interval) and tests of hypothesis. Design of simple agricultural and biological experiments. Analysis of variance. Simple regression and correlation. Contingency tables. Some non-parametric tests. Pre-requisite: O' level pass in Mathematics.

STA 202 Statistics For Physical Sciences And Engineering

4 (4L+ op) Units

Use of statistical methods in physical sciences and engineering. Measure of location, partition and dispersion in ungrouped and grouped data, Elements of probability and probability distributions: Normal, binomial, Poisson, geometric, hypergeometric, negative binomial distributions. Estimations and tests of hypothesis concerning the parameters of distributions. Regression, correlation and analysis of variance. Contingency tables Non-parametric inference. Introduction to design of experiment. Analysis of variance. Pre-requisites: O' level pass in Mathematics.

STA 211 Probability II

4 (4L+op) Units

Further Combinatorial analysis. Probability laws, conditional probability. Independence. Baye's theorem. Probability of discrete and continuous random variables: binomial, Poisson,

geometric, hypergeometric, rectangular (uniform), normal, and exponential. Expectations and moments of random variables Bayes' Theorem. Chebyshev's inequality. Joint Bivariate, marginal and conditional distributions. The Chebyshev's limit theorem, and its issues. Limiting distribution and moments. Pre-requisites: STA 111 and MAT 101 or equivalent.

STA 212 Statistical Inference I

(4 Units) (4L+0P)

Sampling and sampling distribution. Point and interval estimation. Use of the Neyman-pearson Lemma. Hypothesis testing for large samples and some standard small samples situations, the power of a test. Contingency tables. Goodness-of-fit tests. Analysis of variance Pre-requisites: STA 111 or equivalent.

STA 213 Statistical Computing I

(2 Units) (0L+2P)

Uses of computers in statistical computing. Introduction to packages: Access, Spreadsheets, MINITAB, SPSS, R, SAS. Use of statistical packages in solving problems in STA 211, STA 202, and STA 212. Methods of generating random variable, Visualization of statistical data.

STA 214 Introduction To Social And Economic Statistics

(2 Units) (2L+0P)

Statistical systems. Nature, types, sources, methods of collection and problem of official statistics. Index numbers: theory, construction and problems. Socio-economic indicators: nature, types, uses and computation. Nature, sources, contents and problems of official Statistics in selected sectors.

MAT 201 Mathematical Methods I

(3 Units) (3L+0P)

Real – valued function of a real variable. Review of differentiation and integration and their applications. Mean value theorem. Taylor series. Real valued functions of two or more variables. Partial derivatives. Chain rule. Extreme. Lagrange's Multipliers. Increments, differentials and linear approximations. Evaluation of line integrals. Multiple integrals. Pre – requisite – MAT 101, 103

MAT 202 Elementary Differential Equations I

(3 Units) (3L+0P)

First order ordinary differential equations, Existence and uniqueness, Second order ordinary differential equations with constant coefficients. Laplace transforms. Solution of initial-value problems by Laplace transform method. Simple treatment of partial differential equations in two independent variables. Applications. Finite linear difference equations. Application to geometry and physics. Pre-requisite - MAT 103

MAT 204 Linear Algebra I

(2 Units) (2L+0P)

Vector space over the real field. Subspaces, linear independence, basis and dimension Linear transformations and their representation by matrices range. Null space Rank Singular and non-singular transformation and matrices Algebra of matrices Pre-requisite - MAT 101, MAT 102

MAT 205 Linear Algebra II

(2 Units) (2L+0P)

Systems of linear equation, change of basis, equivalence and similarity Eigenvalues and eigenvectors. Minimum and characteristic polynomials of a linear transformation (Matrix). Cayley-Hamilton theorem Bilinear and quadratic forms,

orthogonal diagonalisation. Canonical form. Pre-requisite MAT 101, 102, Co-requisite - MAT 203, 204.

MAT 206: Real Analysis I

(3 Units) (3L+0P)

Bounds of real numbers, convergence of sequence of numbers Monotone sequences, the theorem of nested intervals. Cauchy sequences, tests for convergence of series Absolute and conditionals Continuity and differentiability of functions from \mathbb{R} to \mathbb{R} . Rolle's and Mean value theorems for differentiable functions Taylor series. Pre-requisite -MAT 101, 103

MAT 207 Introduction to Numerical Analysis

(3 Units) (3L+0P)

Solution of algebraic and transcendental equations. Curve fitting. Error analysis. Interpolation and approximation. Eros of non-linear equations in one variable. Systems of linear equations. Numerical differentiation and integration. Initial value problems for ordinary differential equations. Pre-requisite - MAT 101, 103.

CMP 201: Computer Programming I

(4 Units) (2L+2P)

Introduction to problem solving methods and algorithm development, designing, coding, debugging and documenting programs using techniques of a good programming language style. Introduction to Programming Languages. Constants and variables, Expressions: Arithmetic and Boolean. Control structures: Sequence, Repetition & Decision structures. Sequential/Text files. Subprograms:

CMP 202: Computer Programming II

(3 Units) (2L+1P)

Principles of good programming, Structured programming concepts, Errors and Debugging, Testing, string processing, internal searching and sorting, recursion Introduction to Numerical algorithms. Use a programming language different from that in CMP 201, e.g. C++ or C.

CMP 204: Fundamentals Of Data Structures

(3 Units) (2L+1P)

Primitive types, Linear Data Structures: Arrays, Records, linked lists, Stacks, Queues and Strings. Non-Linear Data Structures: Trees and Sets. Data representation in memory, Stack and Heap allocation, Implementation Strategies for stack and queues. Run time Storage management; Pointers and References, linked structures.

300 LEVEL COURSES

GST 311: Entrepreneurship and Innovation

2 Units

This course is an introductory course for studying Entrepreneurship for the first time. The design and flow of the course are aimed at creating awareness, providing the knowledge and skills that are important to achieving success in all human endeavors.

GST 312: Venture Creation and Growth

2 Units

The aim of this course is to develop students' competence and confidence in creating viable businesses with high potentials for new value addition and high income. The course is designed to enable students achieve economic independence after

graduation. Its main goal is to help change students' mindset away from paid jobs and over-dependence on families and government. By the end of the course, students will be able start and manage businesses at micro or at family level. They will also be able grow ventures capable of generating employment and better utilize resources.

STA 311: Probability III

4(4L+op) Units

Brief revision of basic concepts. Probability generating function for Bernoulli, Binomial, Poisson, Hypergeometric, negative binomial, and multinomial distributions. Univariate and bivariate moment generating functions, Urn models. Sampling with and without replacement. Inclusion-exclusion theorem. Allocation and matching problems. Univariate characteristic functions. Various modes of convergence. Law of large numbers and the central limit theorem using characteristic functions. Random walk and Markov chains. Introduction to Poisson Processes.

Pre-requisite: STA 211.

STA 312 Distribution Theory

2(2L+op) Units

Bivariate distribution, bivariate normal distribution. The gamma, chi-square, beta types I and II distribution functions, bivariate moment generating functions and transformation techniques. Probability integral transformation. Order statistics and their functions. Distributions associated with normal, t , F and χ^2 distribution. Pre-requisites: STA 212.

STA 313 Regression Analysis

2(2L+op) Units

Simple and Multiple linear regression models, polynomial regression. Orthogonal polynomial. Total and partial correlation.

Simple non-linear models and parameters requiring simple transformation. Tests of independence and goodness-of-fit. Use of dummy variables. Pre-requisites: STA 212 and STA 213:

STA 314 Analysis of Variance I

2 (2L+op) Units

Analysis of single, double and multiple classifications of balanced data in crossed and nested arrangements. Tests of homogeneity, independence and interactions. Multiple comparison methods. Analysis involving incomplete tables, missing values etc. Estimation of variance components and tests. Pre-requisites: STA 212 and STA 213.

STA 315 Statistical Inference II

4 (4L+op) Units

Criteria of estimation: consistency, unbiasedness, efficiency, minimum variance and sufficiency. Methods of estimation: maximum likelihood, least squares and method of moments. Confidence intervals. Simple and composite hypotheses. Likelihood ratio test. Inferences about means and variance. Rao-Cramer inequality, consistency, efficiency, best asymptotic normality. Gauss-Markov and Fisher-Cochran theorems. Test of hypothesis. Neyman-Pearson theorem. Pre-requisite: STA 212.

STA 316 Laboratory and Field Work on Experimental Design and Inference

2(oL+2p) Units

Computations based on field and laboratory appraisal of some of the techniques and problem on experimental design. Computations involving point and interval estimation, analysis of variance, goodness-of-fit and contingency tables.

STA 317 Sampling Theory and Survey Methods I

4(4L+op) Units

Design of form and questionnaires. Basic sampling methods. Estimation of mean, totals, ratios and proportions in simple random, systematic, stratified, cluster, ratio and regression. Use of auxiliary information. Multi-stage sampling. Methods of Social Investigation. Planning Surveys, problems, design of stratified random sampling. Methods of Social Investigation. Planning and programming Surveys, problems, design of surveys, errors and basic Methods of collection of data, processing, analysis and interpretation. Nigeria's experience in sampling surveys. Pre-requisite: STA 212.

STA 318 Laboratory and Field Work for Sampling and Survey Methods

2(oL+2p) Units

Field and Laboratory appraisal of some of the techniques and problems in sample surveys.

STA 319 Statistical Quality Control

4(4L+op) Units

Basic concepts, Standardization and Specification. Process Control. Use of control charts to achieve process stability. Tolerance limits as a function of component variability. Product control: design of simple, double, multiple and sequential sampling plans. Sampling inspection for attributes and variables and their properties: single, double, multiple and sequential plans. Continuous sampling plans. Cumulative sum charts, feed-back theory for controlling continuous process. Continuous sampling plans. Pre-requisite: 212

STA 320 Laboratory and Field Work for Statistical Quality Control

2 (oL+2p) Units

Practical Construction of control charts. Computation involving tolerance limits, simple, multiple sequential sampling plans. Design and analysis of various rectification themes. Co-requisite: STA 319.

STA 321 Demography

2(2L+op) Units

Demographic data: Types and Sources, Life table: Construction and applications. Definition of basic concepts. Estimation of Population parameters from defective data. Stable and quasi-stable population, population projections. Pre-requisite: STA 212.

STA 322 Laboratory and Field Work For Demography

2 (oL+2p) Units

Computation involving life tables, estimation of demographic parameters from Nigerian population. Co-requisite: STA 321.

STA 323 Biometry

4 (4L+op) Units

Purpose, history and structure of biological assays. International standards. Statistical science and biological assays. Terminology and notations. Types of biological assays. Nature of direct assays. Applications to strophanthus. Precision of estimates. Pre-requisite: STA 212.

STA 324 Operations Research

4(4L+op) units

Classical Methods of optimization: Maxima and Minima. Lagrange's multipliers. Linear programming: Convex sets and function, simplex and revised simplex methods, duality, theory,

game theory: two persons zero sum games, saddle point, dominance strategies. Applications of linear programming.

STA 325 Statistical Computing for Linear Programming 2
(oL+2p) Units)

Exercises on problem formation involving linear programming. Computation using simplex, revised simplex algorithm to solve non-trivial linear programming problems. Use of linear programming computer packages. Co-requisite: STA 324.

STA 326 Statistical Computing II
2 (oL+2p) Units

Use of advanced packages: SAS, TSP, GENSTAT, SYSTAT, BMPD, CONCOR, CENTS, EPI-INFO, and/or ISSA. Analysis of statistical and numerical algorithms. Introduction to Monte Carlo Methods. Probability density estimation, Bootstrap and Jackknife.

STA 327 Design and Analysis of Experiments I
3(3L+oP) units

Basic principles of experimentation, Randomization, replication and blocking. Local control. Basic designs: completely randomized, randomized blocks, Latin squares, Balanced incomplete blocks, split plot. Missing values. Relative efficiency. Estimation and tests of variance components. Multiple comparisons. Departures from underlying assumptions. Applications to agriculture, biology and industry.

STA 328 Students' Industrial Work Experience Scheme (SIWES) I

3 Units

Students are required to undergo industrial training for 3 months. Students should be assessed by IF officers and the department (by visiting the site and grading of report).

MAT 303: Elementary Differential Equations II

3(3L+0P) units

Series solutions of second order linear equations. Bessel. Legendre and hyper-geometric equations and functions. Gamma and Beta functions, Sturm- Liouville problems Orthogonal polynomials and functions Fourier, Fourier- Bessel and Fourier-Legendre Series Fourier transformation Solution of CL Laplace. Wave and heat equations by Fourier method. Pre-requisite –MAT 202.

MAT 304: Vector and Tensor Analysis

3(3L+0P) units

Vector algebra Vector, dot and cross products Equation of curves and surfaces Vector differentiation and applications. Gradient, divergence and curl line, surface and volume integrals Green's Stroke's and divergence theorems Tensor products of vector spaces. Tensor algebra Symmetry. Cartesian tensors Pre-requisite - MAT 201, 204.

MAT 308: Real Analysis II

3(3L+0P) units

Riemann integral of functions from \mathbb{R} to \mathbb{R} , continuous mono-positive functions. Functions of bounded variation. The Riemann-Stieltjes integral. Point wise and uniform convergences of sequences and series of functions from \mathbb{R} to \mathbb{R} Effects on limits (sums) when the functions are continuous differentiable or Riemann integrable. Power series. Pre-requisite MAT 206.

MAT 309: Introduction to Mathematical Modeling

3(3L+0P) units

Methodology of model building; identification, formulation and solution of problems, cause-effect diagrams. Equation types.

Algebraic, ordinary differential, partial differential, differences, integral and functional equations. Pre-requisite - MAT 201, 204; Co-requisite - MAT 302, 303.

MAT 310: Discrete Mathematics

4(4L+0P) units

Graphs: Directed and undirected graphs, sub-graphs, cycles, connectivity, Application (flow Charts) and state transition graphs. Lattices and Boolean Algebra. Finite fields: Mini-polynomials. Irreducible polynomials, polynomial roots. Applications. Pre-requisite- MAT 203.

CMP 305: Algorithms and Complexity Analysis

3(2L+1P) units

Bogie algorithmic analysis: Asymptotic analysis of Upper and standard Complexity Classes Time and space tradeoffs in complexity bounds; average algorithms analysis recursive algorithms. Algorithmic Strategies: Fundamental computing algorithms: Numerical algorithms, sequential and binary search algorithms; sorting algorithms, Binary Search tress, Hash tables, graphs & its representation.

CMP 309 Data Management

3(2L+1P) units

Relational algebra: project, selection, joins. Query optimization: query trees and optimization heuristics, generic trees and reduction techniques in distributed systems. Introduction to database systems: Components of database systems DBMS functions and Database architecture. Normalization. Entity relation model, Entity-relation diagrams. Class-centered and object-oriented databases; Mapping conceptual schema to relational Schema; Database Query Languages (SQL) Concept of Functional dependencies & Multi-Valued dependencies.

400 LEVEL COURSES**STA 411 Probability IV****4 (4L, op) Units**

Probability spaces, measures and distribution. Distribution of random variables as measurable functions. Product spaces; product of measurable spaces, product probabilities. Independence and expectation of random variables. Convergence almost everywhere, convergence in path mean. Control limit theorem. Laws of large number. Characteristics function and Laplace transforms. Pre-requisite STA 311 Co-requisite MAT 405.

STA 412 Stochastic Process**4(4L, op) Units**

Generating functions: tail probabilities and convolutions. Recurrent events. Simple and general random walk with absorbing and reflecting barriers. Gambler's ruin problem. Theory of Markov chains. Continuous time Markov processes and finite chains. Limit theorem. Poisson, branching, birth and death processes. Introduction to Queuing NEWR, Queuing processes; M/M/1, M/M/S, M/G1 queues and their waiting time distributions. Relevant applications. Pre-requisites: STA 311 and STA 312.

STA 413 Time Series**4(3L, 1p) Units**

Estimation and isolation of components of time series. Non-stationary and stationary processes: theoretical moments, auto-correlation and partial auto-correlation. Sample moments: auto-correlations and partial auto-correlations. Univariate Time Series models. Identification and estimation of Auto-regressive (AR,) Moving average (MA) and Auto regressive Moving average (ARMA). Diagnostic checking of models, Linear prediction and

Forecasting. Pectral (Harmonic) analysis, ARIMA and SARIMA.
Pre-requisites: STA 311 and STA 312.

STA 414 Design and Analysis of Experiments II

4(3L, 1p) Units

Further split-plot designs and nested designs, unbalanced designs, incomplete block designs, 2nd factorial designs, Yates – Algorithm confounding and fractional replication. Diallel cross Analysis. Introduction to response surface methodology. Problems in experimentation: Missing Values, heterogeneous data etc. Pre-requisites: STA 312 and STA 315.

STA 415 Regression Analysis II

2 (1L, 1p) Units

Partial and conditional regression and correlation. Autocorrelation and heteroscedasticity. Canonical correlation. Tests of independence of regression coefficients. Multi-collinearity and other problems associated with “Best Regression Models”. Logistic Regression. Pre-requisite: STA 313.

STA 416 Biometry

4(4L, op) Units

Feller’s theorem and its two analogues. The Behrems distribution. Fiducial limits in the Strophanthus assay. Dilution assays. Adjustments for body weight. Direct assay with covariance. Efficiency and utility of concomitant measurements. Design and criticism of direct assays. Indirect assays. The dose-response regression. The condition of similarity. Assay validity. Preliminary regression investigation. The condition of monotony. Linearizing transformations. Pre-requisites: STA 323, STA 313 and STA 314.

STA 417 Analysis Of Variance II

2(1L, 1p) Units

Analysis of variance involving unbalanced data. Multi-variate analysis of variance. Analysis of multi-factor, multi-response of variance such as missing observations. Non-normality, heterogeneity of variance, etc. Analysis of covariance in one way, two-way, three-way and nested classification. Analysis of variance with two concomitant variables Pre-requisites: STA 314.

STA 418 Bayesian Inference

4 (4L, 0p) Units

Baye's Theorem. Posterial distributions. One parameter cases in some standard continuous and discrete distributions. Point and interval estimation. Prediction of future observation. Choice of Priors: Natural conjugate families of prior distribution, simple non-informative priors. Comparison of the means and variance of two normal and Poisson distributions. Linear regression. Tests of hypothesis.

STA 419 Non-Parametric Methods

4 (3L, 1p) Units

Order statistics and their distributions. Kolmogorov type of test statistic, Common non-parametric test including runs, sign rank order and rank correlation. Null distributions and their approximations. Efficiency properties. Test for independent samples. Measure of association for bivariate samples and multiple classifications. Estimates based on test statistics. Pre-requisites: STA 311 and STA 312.

STA 420 Multivariate Methods

4 (3L, 1p) Unit

Multivariate normal and related distributions. Inference about mean vectors, Hotellings T and Mahalanobis D statistics.

Multivariate analysis of variance. Discriminations and classification. Tests of independence. Principal Components and factor analysis.

Pre-requisites: STA 312 and STA 315.

STA 421 Psychometrics

4 (4L, op) Units

The foundations of mental measurement theory, measurement in Psychology and education. The construction of true and error scores. The classical test theory model; fixed length, variable length: Some estimates of parameters of the classical model. Other Weak true-score models; parallel Measurements. Types of reliability coefficients and their estimation. Some test theory for equivalent measurements. Item sampling in test theory and in research design. Pre-requisites: STA 312 and STA 315.

STA 422 Sampling Theory and Survey Methods II

4(4L, op) Units

Single and multi-stage cluster sampling. Equal and unequal clusters. Double sampling. Further use of auxiliary information. Multivariate ratio estimation. Unequal Probability Sampling with or without replacement. Ordered and unordered estimators. Pre-requisite: STA 317.

STA 423 Project

6 Units

Individual work on a selected topic illustrating application of some of the theories and techniques covered in the course.

STA 424 Game Theory

4 (4L, op) Units

Extensive forms and pure strategies. Normal forms and saddle point. Mixed strategies and minimax theorem. Dominance of

strategies. Matrix games. Non-co-operative games. Co-operative games. Linear programming and matrix games. Applications. Pre-requisites: STA 324, STA 326.

STA 425 Decision Theory

4(4L, op) Units

Utility. Non-data decision problems. Data decision problems. Testing and estimation. Applications. Pre-requisites STA 315; Co-requisites: STA 324.

STA 426 Further Topics in Operations Research

4 (4L, op) Units

Network analysis. Transportation problem: North west corner, least cost and VAM methods. Dynamic programming. Nonlinear programming. Simulation. Pre-requisite: STA 324.

STA 427 Modeling and Simulation

4 (2L, 2p) Units

The concepts and techniques used in modeling; simulation methodology and a suitable simulation language; modeling; generation of random variables transformation of random numbers; parameter estimation; design of experiments; factorial design; optimization.

STA 430 SIWES II

3 Units

Students are required to undergo industrial training for 3 months. Students should be assessed using the Log Book, a report and a Seminar.

STA 431 Environmental Statistics

3(3L, op) Units

Scope, nature and sources of environmental statistics. Assessment of environmental quality and measurement of air and water pollution. Sampling methods in natural and applied sciences. Environmental Impact Assessment. Requirement for environmental reporting system. Characteristics and uses of the United Nations frame work for the development of environmental statistics. Capacity development for environmental reporting system.

STA 432 Educational Statistics

3(3L, op) Units

Scope, nature and uses of educational statistics. Sources and methods of collection of educational statistics. Educational indicators, Design of education information systems, Education flow models and performance evaluation. Multivariate methods in educational analysis. Operations research in educational management.

STA 433 Health Statistics

3(3L, op) Units

Scope and types of health statistics. Classification of disease, injuries and causes of death. Sources and methods of collecting health statistics: census, sample surveys, vital registration and administrative statistics. Health indicators: types, uses and problems. Health systems. Health planning and financing. Health information systems. Operations research in the health services.

STA 434 Medical Statistics

3 (3L, op) Units

Scope and nature of medical statistics. Epidemiology methods: relative risks and odds ratios, adjustment of data with and

without use of multivariate models, cohort studies (life tables). Competing risks. Survival analysis. Sequential methods in clinical trials. Stochastic models in epidemiology.

STA 435 Energy Statistics

3(3L, op) Units

Energy sources: renewable and non-renewable, Nature, scope and uses of energy statistics. Concepts, definitions, and units of measurements in use in energy statistics. Energy production and consumption surveys. Data requirements and the procedure for developing an energy database. Constructing an energy balance sheet with Nigeria as a case study. Modelling energy supply and demand.

STA 436 Demography II

3 (3L, op) Units

Estimating fertility, mortality and nuptiality from limited and defective data. Stationary, stable and quasi-stable population models: theory and applications. Multiple decrement life tables. Population projections: mathematical models, component methods and matrix analysis. Path analysis and multiple classification analysis.

STA 437 Actuarial Statistics

3(3L, op) Units

The time value of money; compound interest and discounting; present values and Accumulated values of streams of payments. Decremental rates and other indices; Annuities and sinking funds; solving equations of value; Investment and Appraisal Techniques; Analysis of experiments data and derivation of exposed to risk formulae. Graduation methods (and their applications to curve fitting). Construction of mortality, sickness, multiple decrements

and similar tables with applications to life insurance. National social security and pension schemes

STA 438 Distribution Theory II

4(4L, oP) Units

Distribution of quadratic forms. Fisher – Cochran theorem, Multivariate normal distributions. Distribution of order Statistics from continuous populations. Characteristic and moment generating functions. Uniqueness and inversion theorems. Limit theorems

STA 439 Statistical Inference IV

4 (4L, oP) Units

General linear hypothesis and analysis of linear models. Further treatment of estimation and hypothesis testing extension of uniparameter results to multiparameter situation. Basic ideas of distribution – free test. Bayesian Inference.

STA 440 Logical Backgrounds of Statistics and Decision Theory

4 (4L, oP) Units

Empirical sources of knowledge-hypothesis, observation and experiment. Deductive sources of knowledge and scientific attitude. The concept of causation. Probability, a brief historical treatment to show conflicting definitions. Bayesian statistics and the notion in inverse probability. The place of statistical methods in science. Principles of decision making. Utility functions and their properties. Role of uncertainty. Bayes Strategies. Problems of prior and posterior distributions: value of prior information Minimax strategies. Statistical inference. Theory of games.

STA 441 Econometric Methods**3(3L, 0P) Units**

Nature of econometric. Econometric models: nature types and characteristics. Econometric problems related to single equation models. Construction estimation and tests. Models involving lagged variables. Simultaneous equation systems; structural form, reduced form, identification, estimation and test. Application of econometric models: demand analysis, production functions, consumption and investment function.

ACADEMIC REGULATIONS**1. Academic Regulations**

The policy in pursuit of academic standard and maintenance of good academic atmosphere includes periodic tests, assignments, seminars, and symposia. The students are assessed in all these aspects and these contribute 30% to 40% of the final undergraduate examinations.

2. Attendance of Lectures and Continuous Assessment

- i. Students are expected to attend their prescribed course lectures punctually and regularly. The University has set seventy-five percent (75%) course lecture attendance as pre-requisite for sitting for examination.
- ii. Continuous assessment constitutes 30% (and 40% for Laboratory & Field Work and Statistical Computing Courses) of the total points in the final examination.
- iii. The University is not under any obligation to repeat course(s) and/or continuous assessment to student(s) who absent themselves from continuous assessment (CA), the University may grant concession to students to write a make-up

CA; or test as the case may be in special circumstances such as medical grounds and other approved leaves on application to the Dean of a students' Faculty.

3. Leave of Absence

- i. Students can apply to the Dean of Faculty for not more than one-year leave of absence if the need arises. Student may also apply for special leaves such as maternity, to perform pilgrimage, etc. through appropriate University authority. However, such leaves are given without any academic concessions.
- ii. Students who have genuine reason(s) to be away from the University may also apply for the suspension of their study for a specified period.
- iii. Students are advised to get in touch with the University immediately they have any genuine reason(s) that will warrant their absence from the University during a session. If the circumstance will not permit, as on health grounds the University may accept an application written on behalf of the student.

4. Examinations and Graduation

A. Conduct of Examinations

- i. The University Senate reserves the power, under the Act establishing the University and other subsequent amendments, to decide exclusively on all academic matters.
- ii. At the end of each semester or when applicable, examinations are conducted for courses taught in various departments. Such examinations may take the forms of written papers, oral

- examination, practical, clinical, submission and defense of written projects, etc. as approved by the University Senate.
- iii. The time-table for the examinations shall be fixed on the various notice boards and website in the University stating the time and venue of all examinations.
 - iv. Students who have clashes in the examinations based on the time-table should immediately intimate their Departmental/Faculty Examinations Officers.
 - v. Students who fail to intimate the appropriate officers of the University of Impending Clashes in examinations shall blame themselves for any difficulty or eventuality that may arise.
 - vi. Continuous assessment shall be included in determining the final score of candidates in the examination results.
 - vii. Any student who absents him/herself from any examination without University approval and has not withdrawn from the course of study would be graded "F" for such course(s) and the grade(s) would be reflected in the calculation of his/her GPA for the semester or session. Where there is an approval, such should be documented as appropriate.
 - viii. Subject to the approval of the Senate, the University may grant concessions to student(s) who could not complete or take all the examinations due to certified illness or other exigencies acceptable to the Senate. Where the Senate accepts any reason as genuine, it shall be

- at the pleasure of Senate to determine the nature of concession(s) to be so given.
- ix. The University may allow second semester registration in appropriate cases.
 - x. Students who satisfy the requirements for examinations shall be issued with an examination card dully signed by an appropriate officer, which shall be presented to the invigilator in all examinations.
 - xi. No student shall be allowed to enter the examination hall without the University identity card examinations cards.
 - xii. A candidate shall not be allowed to enter the examination venue if he or she is more than 30 minutes late. However, a candidate may be allowed entry only at the discretion of the invigilator in consultation with the Head of Department or the Faculty Examinations Officer. Such cases shall be reported in writing by the invigilator to the Faculty Examinations Officer.
 - xiii. A candidate shall not be allowed to leave the examination venue within 45 minutes after the commencement of the examination except under exceptional circumstances approved by the Head of Department or the Examinations Officer or the Invigilator.
 - xiv. No candidate shall leave the examination venue during the last 15 minutes of the examination.
 - xv. On entering the examination venue, it is the responsibility of the candidate to draw the attention of the invigilator to any paper or material on his/her seat, table or on the floor around

- him/her to ensure that such materials are removed before the commencement of the examination.
- xvi. A candidate who arrives late shall not be allowed extra time.
 - xvii. A candidate shall deposit any handbag, brief case, books, handouts, etc. outside the examination venue or in front of the invigilator before the commencement of the examination. A student coming into the examination hall with material(s) other than writing material(s) will be doing so at his/her own risk.
 - xviii. A candidate shall comply with the instructions to candidates as set out on a question paper and answer booklet or other materials supplied.
 - xix. Candidate(s) shall also comply with any lawful instruction(s) given by the invigilator.
 - xx. A candidate shall only use the answer booklet or other materials provided by the invigilator. All rough works must be crossed out neatly.
 - xxi. Rough works shall only be done on the answer booklet.
 - xxii. Supplementary answer sheets or booklets, even if they contain only rough work, must be neatly packed into the answer booklet.
 - xxiii. Under no circumstance shall a candidate write anything other than his/her admission number and name on the question paper.
 - xxiv. Where attention of the invigilator is required, hand should be raised to indicate the need. Absolute silence must be maintained.
 - xxv. There should be no writing on examination card and the question paper unless a student is asked to do so.

- xxvi. Nursing mothers are not allowed to take examinations with their babies
- xxvii. Female students wearing face covering are required to be appropriately identified before they are admitted into the Examination Hall and may be required later for identification.

B. Taking of Examinations on Hospital Beds

- i. A hospitalized student shall apply for permission to take examination on his/her hospital bed through his/her physician. The application should reach the Head of Department at least 7 days before the examination of the affected course.
- ii. The Head of Department shall, within 24 hours of receipt of the application, forward his recommendation to the Dean of his Faculty.
- iii. Subject to availability of facilities, the Dean approves the application and notifies the University Authority through the Registrar.
- iv. A copy of the approval shall be made available to the Chairman, Examinations Monitoring Committee, before the commencement of the examination for necessary action.
- v. The approval shall be communicated to the student at least 24 hours to the examination.
- vi. A minimum of ~~N~~1,000.00 and a maximum of ~~N~~5,000.00 shall be paid by the student, being expenses for the conduct of the examination per paper.
- vii. Examination materials (question papers and scripts) for the student should leave the main examination hall within 2 minutes of commencement of the examination and should

reach the hospital within 45 minutes of commencement.

C. Guidelines for Re-Marking of Examination Script(s)

- i. When a student applies for his/her scripts to be re-marked, Senate is to approve the assessor on the recommendation of the Vice-Chancellor.
- ii. The assessor should be paid an appropriate honorarium to be determined by Senate.
- iii. A student who wishes to apply for his/her paper (s) to be re-marked, should do so within one week of release of examination results by his/her Faculty.
- iv. A student should pay, in cash and in advance, the full expenses for the re-marking (to be estimated by Registry) before his/her script (s) is/are sent out. The payment should be done within one week of Senate's approval of the assessor.
- v. The verdict of the assessor, which would be reported to the Senate before being known to the student, will be final.
- vi. All such requests should be routed through the complainant's Faculty Board, which should, within two weeks of the receipt of the complaint, investigate and present to the Senate their findings and recommendation (s).
- vii. If the complainant is however, not satisfied with the decision taken at this stage, he/she would then be free to apply for his/her script (s) to be remarked by another external assessor in accordance with the above guidelines.

D. Calculation of Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA)

- i. Letter grades and grade points are earned from percentage scores in the final examination in a given course as follows:

Percentage Score	Letter Grade	Grade Point
70 - 100	A	5
60 - 69	B	4
50 - 59	C	3
45 - 49	D	2
40 - 44	E	1
0 - 39	F	0

- ii. GPA and CGPA are not calculated for DVM and MBBS programmes nor are these degrees classified at the end of the training. For this reason, the minimum pass grade is a "C" for all courses and any score below fifty percent (50%) is graded "F".
- iii. The performance of a student in a semester is reported as (GPA), while the overall performance at the end of the session (and/or at any point in his/her study programme) will be reported as CGPA.
- iv. A weighed Grade Point (GP) is determined for the performance in each course by multiplying the grade point obtained by the credit unit of the course.
- v. Adding the weighed grade point obtained in all courses offered in that semester and dividing the sum by the total value of credit of all the courses, determines the GPA for the semester.

- vi. Cumulative Grade Point is calculated by adding the weighed grade points obtained in all courses offered up to the end of a given session (and/or up to a point in a student's programme or end of the programme) and dividing the sum by the total value of credits of all courses at that point.
- vii. To qualify for a Bachelor's degree, a student must obtain a minimum number of credit units for each level of study (core and elective courses) and the total units required for his/her programme as well as the credit units for General Studies courses.

E. Classification of Degrees

Degree classes will be designated with reference to Grade Point Average as follows:

4.50 – 5.00	First Class Honours
3.50 - 4.49	Second Class Honours (Upper)
2.40 –3.49	Second Class Honours (Lower)
1.50 – 2.39	Third Class Honours
0.00 – 1.49	Fail

F. Probation, Withdrawal and Inter-Faculty/Programme Transfer

- i. If a student's GPA falls below 1.00 during one session, he/she would be placed on probation (warning period) in the hope that the student will improve in the following session.
- ii. If in the following session, the student's GPA still falls below 1.00. he/she shall be withdrawn from the programme. However, if a student's GPA falls below 0.50 at the end of any session, he/she shall be withdrawn without any probation.

- iii. A student so withdrawn for poor academic performance in one programme may be considered for another programme on application, provided he/she obtains a CGPA of not less than 0.75 at the end of the probation period. Application forms for such transfers are available in the Academic Secretary's Office upon payment of prevailing charges.

G. Regulations Guiding Withdrawal from Academic Programmes

1. Voluntary Withdrawal:

The University has no objection to any student withdrawing from any programme voluntarily. However, the University is not under any obligation to accept such student into any other programme. Nonetheless, only students from College of Health Sciences, Faculties of Agriculture, Law, Medical Laboratory Sciences, Pharmaceutical Sciences or Veterinary Medicine may be considered for transfer after he/she must have satisfied the following conditions:

- i. he/she must have spent two (2) academic sessions in the former Faculty;
- ii. he/she must present a letter of consent from the sponsor;
- iii. he/she must present written evidence of interaction with the student adviser, or the University Guidance and Counseling Officer;
- iv. he/she must present positive recommendation from Departmental and Faculty Boards attaching relevant minutes and other genuine evidences; and

- v. (ii-v) must be obtained before the expiration of registration period to facilitate registration of the accepted student.

2. **Withdrawal Due to Academic Incompetence**

For any student withdrawn due to academic incompetence from the College of Health Sciences, Faculties of Agriculture, Law, Medical Laboratory Sciences, Pharmaceutical Sciences or Veterinary Medicine to be considered on transfer to another Faculty, the following conditions must be satisfied:

- i. *at the end of the probationary period a student must have attained a CGPA of 0.75;*
- ii. transferring student must satisfy the entry requirements of accepting Department/Faculty;
- iii. under no circumstance should a student be considered for transfer for more than once throughout the period of his/her studentship; and
- iv. any student who fails to graduate after exhausting his/her maximum period of studentship will not be considered for transfer to any Faculty.

H. **Spill Over**

- i. Students who are not able to graduate at the end of their approved period of study shall be allowed to carry over such courses into the following session. This period shall be referred to as "First Spill Over".

All grades scored in that session shall be fully credited to the student and scored class of degree awarded.

- ii. Students who could not graduate at the end of the second spill over would be withdrawn from the University. It should be noted that the period of study of any undergraduate student shall not exceed the normal period prescribed for the study by more than four semesters. Diploma students have only two additional semesters.

I. Graduating With an 'F' Grade in A Course

- i. To graduate, the University expects students to pass all registered courses. However, in exceptional circumstances, they may apply to graduate with an "F" grade in an elective course irrespective of the session of registration of the course.
- ii. The application is made through the Head of Department and Faculty to the Chairman of Senate, provided the course is not a core course.
- iii. Such students are also expected to meet minimum requirements for graduation in terms of credit units at different levels.
- iv. For other conditions required for the consideration of such applications, students are advised to contact their Heads of Department.
- v. It should be noted that the provision is not a right but a privilege.

J. Notification of Examination Result

1. The Dean of the Faculty shall on the semester grade sheet/MIS grade slip, communicate to the students as soon as possible, Senate approved results.
2. A student may also request, in writing to the Dean of the Faculty, for his/her result slip or semester grade sheet or statement of result (Postgraduate students) if the need arises.
3. Students shall report immediately to the Head of Department or the Dean through Examinations Officer any discrepancies in the grades communicated to them.

K. Regulations Governing Conduct and Discipline of Students

a) General Conduct

- i. Students are advised to take good care of their personal belongings. The University will not be responsible for any damage to, or loss of personal effects.
- ii. Any breach of peace or social nuisance within the University premises should be reported to the appropriate University authority (Porter, Caretaker, Matron, Hall Administrator, Security Division, etc.).
- iii. Absence from lectures, tutorials or practical classes requires the approval of the Heads of Department and the Deans concerned.
- iv. Students are prohibited to buy, sell, keep, and consume alcoholic drinks in the University premises. Any student caught contravening this provision shall be restricted for two semesters/contact sessions and also be deboarded

- from the halls of residence throughout his/her stay in the University.
- v. Students are prohibited from consuming, keeping, selling or otherwise dealing in illicit drugs within the University premises. Students caught indulging in this act shall be rusticated for two semesters and handed over to the National Drug Law Enforcement Agency (NDLEA).
 - vi. Students caught with firearms and or dangerous weapons within the premises of the University shall be expelled and handed over to the Police.
 - vii. Students are responsible for the conduct of their visitors within the premises of the University.
 - viii. Students and visitors are only allowed access into the campuses of the University after 10.00 pm on proper identification.
 - ix. Visitors to the female hostels are not allowed to be at the premises beyond 10.00 pm.
 - x. All unauthorized vehicles and their owners should vacate the premises of the halls of residence before 10.00 pm.
 - xi. Loitering around the halls of residence and shelterbelts beyond 10.00 pm is not allowed. Students who violate this provision shall be disciplined accordingly (ranging from warning to rustication for one semester/contact session).
 - xii. Under no circumstance should students receive visitors of opposite sex in their rooms. Violation of this provision shall lead to two-semester/contact sessions rustication for the students and the lost of University accommodation throughout their stay in the University.

- xiii. Students shall not indulge in physical combat in the University. Students who violate this provision shall be rusticated for two semesters/contact sessions and in addition, forfeit University accommodation for the following session.
- xiv. No student shall take the laws into his/her hands. Students who take laws into their hands shall be rusticated for two semesters/contact session.
- xv. Any student caught with inappropriate possession of items within the University community shall be handed over to the University Security Division for further necessary action. Once the security division establishes a case of theft, he or she would be suspended and handed over to the police; where a report indicates conviction by a court of law, he or she shall be expelled.
- xvi. A student arrested by security agencies and charged for a non-bailed criminal offence shall be suspended immediately until when investigations are concluded, where a report indicates conviction by a court of law, he or she shall be expelled.
- xvii. Political parties and their activities are not allowed on campus but as citizens of the country, students are free to belong to any political party of their choice.
- xviii. Any student accused of rape, sodomy and/or bestiality/lesbianism shall be handed over to the Police and liable to expulsion should judicial authorities prove the allegation.
- xix. Any student caught forging any document relevant to his/her admission shall be expelled from the University.

- xx. A student caught forging any document of the University or any other document in a bid to cheat or gain undue advantage in the University shall be expelled.
- xxi. Students who indulge in sexual harassment of fellow students and other members of the University community shall be liable to rustication for two semesters/contact sessions or expulsion.
- xxii. **Cultism is prohibited in the University.** Students who belong to any cult shall be expelled from the University and handed over to the police.
- xxiii. No student is allowed to institute a case (civil or criminal) against a fellow student while the University is in session without prior notice to the Dean of Student Affairs.
- xxiv. In the event of a student having a case in a court of law or the police station while the University is in session, the student shall liaise with University for out of court or police settlement provided it is not a criminal case.
- xxv. No student shall indulge in any conduct that would bring the good name of the University to disrepute. Violation of this provision shall attract rustication for two semesters/contact session or expulsion.
- b) Sport and Sport Equipment**
 - i. Students are encouraged to participate in sporting activities.
 - ii. Sport equipment may be issued to students whenever necessary, be it on individual or club basis or through associations/societies.

- iii. Any student who fails to return sport equipment issued to him/her at the stipulated time will be made to pay a prescribed fine.
- iv. In the event of the lost of any equipment issued to student(s), the student(s) or club(s) shall be made to replace it and pay a fine of not less the cost.

c) Mail

The University shall not be responsible for any missing mail.

d) Identity Cards/Identification

- 1. The possession of University identity cards by students` is compulsory.
- 2. A student must identify himself/herself by providing his/her identity card when required to do so.
- 3. Identity card is to be obtained from the students` Affairs Division on payment of prescribed fees.
- 4. Students who do not have identity card may be denied University facilities or other benefits meant for students.
- 5. Upon completion of their studies or termination of studentship, the identity card should be surrendered to Chief Security Officer.
- 6. Students who have vehicles shall obtain University stickers from the Tollgate Management Committee on payment of prescribed fees. The stickers shall be pasted boldly on their vehicles for easy identification.
- 7. Students who have vehicles and residing in the halls of residence shall register their vehicle with

the security post at the hostel or the campus as the case may be.

8. Vehicles with tinted glasses are not allowed into the University except those permitted by law.
9. Reckless driving is prohibited within the premises of the University Defaulters shall have their cars impounded, in addition to any other disciplinary measures deemed fit by the University.

e) Collection of Money in the University

- i. Individual students or students' organizations shall not solicit for donations in respect of any function held by them within and outside the University except with the express permission of the Dean of Students Affairs and upon the recommendation of their Staff Adviser.
- ii. Registered students' associations are allowed to charge a token as registration or annual dues from their members. However, the charges shall be within the limit approved by the University Management.
- iii. When it is necessary to make a charge to cover the expenses for programmes organized by students' associations, printed tickets of programmes can be offered for sale on approval by the Student Affairs Division.
- iv. The Executives of any association that contravene the regulations on collection of money shall be dissolved forthwith, in addition to any disciplinary measure deemed fit by the University.
- v. Any student or group of students who collects money or donation under any false pretence shall be expelled from the University.

- vi. Withdrawal of money from the account of students' associations requires express permission of Staff Adviser(s).
 - vii. Any student or group of students who embezzles (mismanages) any money or property belonging to a registered union/association/club/society or the Students Union shall be made to refund the money, replace the property or have their results/NYSC call up letters withheld or be liable to two-semesters/contact sessions rustication or expulsion, as the case may be.
- NB:** Students rusticated in the first semester will henceforth have the portal opened to enable them register in the second semester of a session.

L. DRESS CODE

Nudity and the following forms of indecent appearance are not allowed in any of the University Campuses;

1. Wearing of any dress that exposes the chest, un-buttoned or half-buttoned shirts.
2. Use of tight fitting, transparent dresses, sleeveless short blouses, heavy make-ups, and excessive use of jewelry.
3. Use of worn out or sliced trousers/skirts, T-shirts with provocative messages, and wearing of short/mini skirts at academic functions. In addition, female students are not allowed to wear shorts outside their hostels.
4. Wearing of earrings and necklaces or perming and weaving of hair by male students.
5. Wearing of dark glasses during lecture (except on medical grounds).
6. Students should always appear neat and tidy.

7. Contravention of any of the above attracts appropriate punishments, ranging from warning for first offenders and rustication for subsequent violation.

M. ACADEMIC MISCONDUCT

1. Once a student is accused of any examination misconduct he or she shall be requested to write a statement. Refusal to do so shall attract two-semester/ contact sessions rustication.
2. A student accused of examination misconduct shall be invited to appear before the Faculty/College/School Examination Misconduct Committee. Failure to honour the invitation shall attract expulsion.
3. A candidate shall not take into examination hall/room or have pre-programmed electronic device in this or any other form of printed or written material or audio recording or an organized electronic(s) on his or her body or clothing items, whether relevant to the examination or not except as may be stated in the rubric of the question paper, or he/she is specifically authorized to do so. An invigilator or a security officer present has the authority to confiscate any such unauthorized document(s) or material(s) and shall duly forward the same un-tampered document(s) or material (s) to the appropriate officer or authority for necessary disciplinary action in accordance with these regulations and applicable law.
4. Any student caught with material(s) described in regulations 3 above and which material(s) is/are capable of giving him/her undue advantage on the examination being conducted shall be liable to rustication for not less than two semesters in the first instance and expulsion on the misconduct.

5. Any student caught with material(s) described in regulation 3 above but not relevant to the examination being conducted shall have that examination cancelled. Provided, that the conclusion that such a material is not capable of giving a candidate undue advantage in the examination being conducted shall be the preserve of the appropriate Examination Misconduct Committee investigating the particular matter.
6. Possession of telephone handsets and other unapproved electronic devices such as MP3 player and others during the examination is prohibited. Any candidate caught with such devices in the course of examination shall be rusticated for one semester/contact session.
7. Any attempt to suppress, mutilate or destroy any evidence of misconduct (including chewing or swallowing or burning or concealing of the written material, question paper, answer script, etc) by a student is considered to be as grave as the misconduct alleged and shall attract rustication for at least two-semester/contact session.
8. A candidate shall deposit any handbag, briefcase, etc outside the examination hall/room or a place(s) designated by the invigilator before the commencement of the examination. The Invigilator shall ensure that the regulation is complied with and any candidate who fails or refuses to leave his/her handbag or briefcase etc outside the examination hall/room shall not be allowed into the examination hall/room or the designated place(s).
9. A candidate shall comply with all lawful instructions given by the invigilator(s) and other officers of the University charged with the responsibility of the conducting examination.
10. A candidate shall sign the attendance list/register at the commencement of the examination and at the end while

- submitting his answer scripts. In the event of any dispute arising as to whether or not a candidate sat for the examination and/or submitted his answer scripts the signatures on the attendance list/register shall be conclusive proof thereof.
11. A candidate shall use only the answer booklet provided by the Invigilator. All rough works must be crossed out neatly. Supplementary answer booklets even if they contain only rough works, must be tied together with the main answer booklet.
 12. Under no circumstances shall a candidate write anything on the question paper or any other material. All rough work shall be done on the answer booklet. Contravention of this regulation (conclusive) proof of which shall be the question paper of the candidate in question shall attract rustication for a semester/contact session.
 13. A candidate shall not remove or mutilate answer booklet or any other material/paper supplied, whether used or not, except that he may remove from the examination hall/room at the end of the examination, the question paper (if this is not required by the invigilator in furtherance of the purpose of regulations 3, 4 and 5 above) and such other items authorized by the invigilator. If the removal or mutilation relate to answer booklets the candidate shall be liable to rustication for 2 semesters / 2 contact sessions.
 14. Until candidates are allowed to leave the examination room, no copy of any question paper shall be removed from the examination hall/room. Any candidate who removes any question paper from the examination hall/room before the time candidate are allowed to leave the examination hall/room shall be liable to rustication for one semester /one contact session.

15. In the event that a candidate, for good cause, has to leave the examination hall temporarily, the invigilator or security personnel shall accompany him on duty.
16. A candidate shall neither sit for, nor arrange with another person to sit for him or her or other candidates in any examination conducted by this University. Such conduct shall attract expulsion for both students involved.
17. In the course of taking an examination conducted by this University, a candidate shall neither give nor accept any assistance whatsoever from any other candidate or person within or outside the examination hall/room. A breach of this regulation shall attract rustication for one semester / one contact session in case of student(s).
18. Smoking is not permitted inside the examination hall/room and the cigarettes /pipes` are liable to be confiscated by the invigilator or any authorized security personnel. The erring candidate shall be liable to rustication for a semester/one contact session.

At the end of the time allocated for an examination, a candidate shall gather his/her booklets neatly and shall hand over it to the invigilator. A candidate is responsible for the proper return of his/her scripts.

19. Talking to any other candidate in the course of the examination without permission of the invigilator shall attract rustication for one semester /one contact session.
20. A candidate shall not, either before or after an examination, threaten or blackmail an invigilator, lecturer, examiner, member of Senate or committee or any other officer connected with the examination. Such conduct shall attract rustication for at least 2 semesters / 2 contact sessions.
21. For the avoidance of doubt, examination misconduct regulated by these rules shall include the following: -

- i. Substitution of /or alteration of answer scripts by any means after it has been submitted to the Invigilator at the end of the examination.
 - ii. Breaking into the house, office or vessel of any examiner, lecturer, invigilator or any other officer having anything to do with marking or evaluation or the performance of candidates or processing at an Examination Center conducted by the University.
 - ii. Obtaining, procuring or possessing by any means, a preview of questions intended for any Examination being conducted by this University before it's due date and time.
 - iv. Impersonation in the course of any examination conducted by any institution or official Examination bodies in Nigeria by a student of this University.
 - v. Any other misconduct related to examination conducted by the University, which the Vice-Chancellor may from time-time, consider as examination misconduct.
22. Any candidate found to have breached or committed any of the examination misconducts in regulation xxiii above shall be liable to rustication for at least 2 semester / 2 contact sessions or expulsion.

N. PROCESSING OF APPLICATION FOR DEFERMENT

It has been observed that most Faculties treat application for deferment of period of study with such levity that some even recommend application in respect of students who had since exhausted maximum period of study but could not graduate for one reason or the other. Some Faculties do not even treat the applications until the

period for which deferment was sought had lapsed. In some cases, the applications are simply misplaced thereby subjecting the affected student(s) to unnecessary hardship at the point of graduation. To avoid some of the problems stated above and to facilitate prompt consideration of such applications, the following guidelines would assist:

1. Deferment of Session or First Semester On Personal Grounds

Procedurally, any student wishing to defer a whole session or the first semester thereof on personal/financial grounds should apply at the beginning of that session and certainly not later than two weeks after the end of registration exercise.

2. Processing of Applications

Upon receipt of applications (which should be written to the Dean of Faculty, through Head of Department), Department should consider, recommend and forward it to the Dean for consideration by the Faculty Board. The decision of the faculty Board would, thereafter, be communicated to Senate for information. The memo to be submitted to senate should be accompanied by the photocopy of the applications.

3. Deferment on Medical Grounds

Application for deferment of period of study on medical grounds could be considered at any point within the session provided the University is notified immediately the applicant takes ill. Where a student is even incapacitated to apply, application by proxy is allowed.

The application should be written to the Chairman of senate through, Head of Department and Dean of faculty. Upon recommendation by the department, the Faculty

Board will consider the application and forward recommendation to senate.

The memo to be sent to senate will be accompanied by the original application and medical report, authenticated by the Acting Director, Health Services.

It should be noted that:

- a) Where a student falls ill at the beginning of a session and did not notify the University before the end of the first semester of the same session, he/she shall be deemed to have voluntarily withdrawn him/her self from the University.
- b) Where a student falls ill during the second semester and did not inform the University before the end of the semester, he/she shall be deemed to have voluntarily withdrawn him/her self from the University.

PROJECT REPORT FORMAT / STRUCTURE

In order to provide uniformity for the presentation of undergraduate student projects in the Department, the project report is likely to follow this broad structure, but your chapter's sub-headings will reflect the individuality of your own project. Your report needs to be presented in the following format:

- 1. Cover Title Page**
- 2. Title Page**
- 3. Certification**
- 4. Dedication**
- 5. Acknowledgements**
- 6. Table of Contents**
- 7. Abstract**

- Approximately 200 words. This is a summary of what the project is about and the outcome of your work.

8. Chapter One: Introduction

- Clearly described the background, research problems, research aim and objectives, motivation, scope and limitation of the study.

9. Chapter Two: Literature Review

- The review should be well integrated and comprise relevant and current published knowledge on the study; Critical review of the tools and techniques related to the study; Use of specific evidence and citation in accordance to the proper format.

10. Chapter Three: Methodology/System Analysis and Design

- Clear description of the method(s) adopted; Justification of choice of method(s); the process by which the data were generated, gathered and recorded should be clearly stated. It may also include the detailed analysis and design of the current system under study.

11. Chapter Four: Analysis and Discussion /System Implementation and Testing

- Correct interpretation of the results; understanding the results' practical implication; Critical analysis and detail explanations of evidences should be well presented. It may also include the detailed implementation and evaluation of the overall system under study.

12. Chapter Five: Conclusion, Summary and Recommendations

- This chapter should end the report with at least three paragraphs that sum up the project and any implications, conclusions or recommendations and suggestions for future research/work.
-

13. References

- If you have cited evidence in the main body of your report, this must be referenced in an identifiable referencing style. The Harvard or A.P.A (American Psychological Association) referencing style must be adopted.

14. Appendix (Appendices)

- You can include any other information in the appendices, if relevant.

Other Details Include:

Paper Size: A₄

Type Setting: Times New Roman font should be used throughout the document in size 14, 1.5 Line Spacing OR in size 12 Double Line Spacing. The left margin of your document must be at least one and one-half inches (1½"). When binding the document, the spine will be on the left side so the extra space is needed. The right margin, top margin and bottom margin must all be one inch (1").

Binding: Hard Cover Bound in Navy Blue Colour.

Submission: 3 Copies

STAFF STRENGTH

S/N	SP No	Name	Qualifications	Rank	Specialization	Status
1	SP 1132	S. U. Gulumbe	B.Sc., M. Sc., Ph.D	Professor	Pattern Recognition, Spatial Statistics and Applied Statistics	Tenure
2.	SP 895	B. K. Asare	B.Sc., M.Sc. Ph.D.	Senior Lecturer	Time Series & Operation Research	Tenure
3.	SP 2101	Abubakar Danbaba	B.Sc., M.Sc. Ph.D.	Professor	Design of experiment	Tenure
4.	SP 2787	Yakubu Musa	B. Sc, M.Sc, Ph.D.	Professor	Time Series & Econometrics	Tenure
5.	SP 2788	Umar Usman	B. Sc., MSc, Ph.D.	Professor	Geo-statistics /Applied Statistics	Tenure
6	SP 2177	Aminu Muhammed	B. Sc., M.Sc, PhD	Professor	Computer Networks	Tenure

DEPARTMENT OF STATISTICS -B.Sc. Statistics

7	SP 2857	Bello Nakone	BSc., MSc, Ph. D	Professor	Mathematics/ Space Dynamics/Real Analysis	Tenure
8.	SP 3290	A. B. Zoramawa	B. Sc., M.Sc, Ph. D	Reader	Quality Control/Applied Statistics	Tenure
9.	SP 3289	N. S. Dauran	B. Sc, M.Sc, Ph.D	Senior Lecturer	Design of Experiment	Tenure
10.	SP 3735	Ahmed Audu	B. Sc., MSc, Ph. D	Senior Lecturer	Sampling Theory and Survey Methods	Tenure
11	SV 100	Shamsuddeen Suleman	B. Sc., M.Sc, Ph. D	Senior Lecturer	Machine Learning and Time Series	Visiting
12	SV 210	B. A. Wasiu	B. Sc., MSc, Ph. D	Professor	Time Series Analysis	Visiting
13	SV 142	G. I. Onwuka	B. Sc., MSc, Ph. D	Reader	Multivariate Analysis	Visiting
14	SP 7694	A. M. Ndatsu	B. Sc. , MSc	Assis. Lect.	Survival Analysis	Tenure
15	SV 84	U. Dauda	B. Sc., MSc, Ph. D	Reader	Multivariate Analysis	Visiting

DEPARTMENT OF STATISTICS -B.Sc. Statistics

16	SP 6324	M. S. Magami	B. Sc., MSc, Ph. D	Senior Lecturer	Algebra	Tenure
17	SP 3287	M. M Hamza	B. Sc., MSc, Ph. D	Senior Lecturer	Computational fluid Dynamics	Tenure
18	SP 3292	Abdulkreem Bello	B. Sc., MSc, Ph. D	Senior Lecturer	Software Engineer.	Tenure
19	SP 3146	Surajo Shehu	BSc , MSc	Lecturer II	Computer Networks	Tenure
20	SP 2621	B. A. Buhari	BSc MSc	Lecturer I	System Security	Tenure
21	SP 2857	Ibrahim Muhammad	B. Sc., MSc, Ph. D	Senior Lecturer	Applied Mathematics	Tenure
22	SP 6287	Jamilu Abubakar	B. Sc., MSc, Ph. D	Lecturer I	Non-Linear Analysis and Optimization	Tenure
23	SP 6427	A. S. Muhammad	BSc, MSc, PhD	Lecturer I	Topological Data Analysis	Tenure
24	SP6261	Sadia Umar	BSc , MSc.	Lecturer II	Physics	Tenure
25	SP 8154	H. Y. Ibrahim	BSc , MSc	Ass. Lect.	Applied Statistics	Tenure
26	SP 8161	Abdulrahman Hassan	BSs	Grad. Ass.	Statistics	Tenure